A MANUAL

FOR

MIDWIVES AND MONTHLY NURSES.

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BY

FLEETWOOD CHURCHILL, M.D., DUBL. AND EDIN.
M.R.I.A.

FELLOW AND EX-PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND, ETC.

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PREFACE TO FIRST EDITION.

MIDWIVES occupy very different positions on the Continent and in Great Britain. There, they are expected to fulfil all the duties of an accoucheur, and to perform the various obstetrical operations; here, their sphere is limited to the lower classes, and their duty, to attending upon ordinary labor. Accordingly, their educational preparation affords as striking a contrast as their duties. On the Continent, they are thoroughly taught their duties, lectures are delivered to them, and, in some parts, books are published for them by authority. In France, as we all know, two valuable works are the production of midwives. In these countries, I believe, little has been done to carry them beyond the merest rudimentary knowledge, even when that is attempted; few lectures are given to them, and they have no suitable text-book. I fear that many, if not most, of our midwives begin practice with no other qualification than that of having had

a number of children themselves, and having assisted their neighbours in their troubles.

I do not appear here as the advocate of female practitioners; but of the necessity, if there is to be such a class of persons, of their knowing something of their business. With this view, I have prepared this little manual, in which I have endeavoured to teach as much as a midwife in Great Britain need know, considering the limitation of her practice; without giving an amount of information which must lead to mischief, by tempting her to interfere in cases for which she is not competent. I have therefore treated fully of natural labor, and have entered into minute details as to convalescence and the management of the child. But upon the various deviations from natural labor, which demand the aid of the accoucheur, I have only given such information as will enable a midwife to recognise them in time to obtain needful assistance.

As all midwives act as "monthly nurses" or "nursetenders," I have thought it useful to describe, with considerable minuteness, their duties in this capacity.

THE demand for a Third Edition of this work is very gratifying, as proving that to a certain extent at least it has supplied a want that was felt.

I have carefully revised and corrected the text and have added a few illustrations which I trust may be found useful.

15 ST. STEPHEN'S GREEN,
August, 1872.

The publishers are glad that the continued demand for this work calls for a Fourth Edition.

August, 1879.

TO

ALFRED H. M'CLINTOCK, ESQ., M.D., M.R.I.A.,

LICENTIATE OF THE COLLEGE OF PHYSICIANS, AND FELLOW OF THE COLLEGE OF SURGEONS;
LATE MASTER OF THE LYING-IN HOSPITAL, ETC.

My Dear M'Clintock,

It was your representation that induced me to undertake this little Work: it has benefited by your supervision throughout, and in thus dedicating it to you, I wish to express my high respect for your professional attainments, and the warm personal regard with which I am,

My dear M'Clintock,

Faithfully and sincerely yours,

THE AUTHOR.

St. Stephen's Green, Dublin.

CHAPTER I.

INTRODUCTORY.

BEFORE entering upon the special subjects of this volume it may be well to mention certain qualifications which ought to be possessed by midwives and nurses, rather as a standard at which you may aim, than merely a test of your present attainments. It is a wise plan for each of us, in our several vocations, to form a high estimate of excellence, and to make it our daily endeavour to approach it as nearly as we may be able.

1. A good midwife and nursetender ought not only to be a woman of irreproachable moral character, but she ought to have a deep sense of religion. This will lead her to regard her office as a high vocation, the duties of which are to be conscientiously performed for His sake, who entrusted them to her; it will support her under fatigue; and in the midst of scenes of difficulty, distress, and sorrow, will

lead her to the only source of strength, and comfort, and wisdom. An irreligious nurse will generally be more or less inefficient.

2. She ought to possess a tender sympathy for the sufferings of others; and, so far from interfering with her usefulness, this will render her efforts more diligent and untiring, at the same time that the gentleness and feeling she manifests will soothe the patient and acquire her confidence.

3. A habit of quick yet careful observation is essential, lest she should overlook some important symptom, or undervalue some unusual occurrence, and so lose the earliest opportunity of affording relief, or of sending for advice and assistance.

4. A certain amount of education should be possessed by all midwives and nurses. A nurse who cannot read, cannot be trusted with the administration of medicines without great risk; a degree of cultivation ensures greater intelligence, and, as they have abundant leisure, they have time for improvement. I can also say, from experience, that a nurse who can read pleasantly has it in her power to beguile many a weary hour for her patient.

5. Neatness and cleanliness should characterize not only her person and dress, but the entire sphere of her duties. The arrangements of

the sick chamber, of the bed, of the patient, and of the infant, should all be marked by order, cleanliness, and neatness. A slatternly nurse is generally something worse. She should have "a place for everything, and everything in its place." Her own dress should always be of materials that will allow of being washed, and which will not rustle.

6. As tidiness should be the character of her department, so quietness and gentleness should mark her movements and actions. There should be no hurry, no bustle, no fuss. As everything should have its proper place, so every duty should have its proper time and order, that the patient may neither be flurried nor discomposed. A quiet tongue is also of great value, so that the patient may not be worried by much talking; nor apprehensive that domestic details will be repeated abroad.

7. When in attendance with a medical man, a scrupulous attention to his directions should be regarded as the nurse's first duty, on no account to be neglected from carelessness, or evaded at the request of the patient or her friends. As she is responsible to him for the faithful execution of his orders, she is so far answerable for the safety and life of the patient. She should carefully note any change which takes place, and if necessary preserve the dis-

charges for the doctor's inspection. To practise any improper concealment towards the attending physician is a gross injustice to both parties, which may cost the patient her life, and bring irretrievable disgrace upon the nurse.

8. The midwife or nurse should cultivate habits of perfect accuracy and truth towards the patient, her friends, and the medical attendant: it is quite possible, and often necessary, to refrain from telling the whole truth to the patient, without telling what is untrue. For the sake of her own health, as well as for the efficient discharge of her duties, she should be temperate in eating; of early, active habits, and of constant watchfulness, so long as she is in attendance upon a patient.

CHAPTER II.

GENERAL DESCRIPTION OF THE PARTS ENGAGED IN CHILDBIRTH.

It would be quite superfluous to enter upon the minute anatomy of the pelvis and organs of generation; I shall, therefore, merely notice in a general way such points as are of practical importance. The only structures with which, as midwives, you are concerned, are, the bony cavity called the pelvis, and the womb, with its outlet, the vagina.

The *pelvis* (or basin) is a cavity formed by the junction of several bones, which are distinct at a very early period of life: the *ilium* (or haunch bone) forming the upper part of the sides; the *ischium* (or sitting bone), the lower part of the sides; the *pubis* (or share bone) in front; the *sacrum*, and the *coccyx*, (or crupper bone), the posterior portion: these are all joined firmly together in the adult, with the exception of the coccyx, which is moveable.

Then we have a cavity open above (the brim or inlet), and below (the outlet), but enclosed all around by fixed bony limits: the size of the cavity is diminished in the living subject by certain muscles and other tissues which cover the bones, and the lower outlet is nearly closed by soft parts. This bony cavity or pelvis is situated at the lower end of the spine, and to its sides the lower limbs are attached. Some of the diameters of the pelvis you must know in order to understand the possibility of the passage of the child, and what we mean by deformity of the pelvis.

If you examine the brim or upper outlet of the pelvis, you will find that from the upper projecting portion of the *sacrum* (the promontory) to the tubes, measures from four to four and a half inches; this is called the antero-posterior or conjugate diameter. At right angles to this, across the pelvis, from one side to the other, at its widest part, is the transverse diameter, which measures from five to five and a half inches. Another diameter, called the oblique, measured from the part where the sacrum and ilium join, to the opposite side in front, is about five inches; but in the living person this diameter is somewhat longer than the transverse, which is diminished by the presence of the soft structures. In

the cavity of the pelvis the length of these diameters is but little changed; the antero-posterior diameter rather increases as you descend and the transverse is rather diminished; but at the lower outlet their relative length is reversed. The transverse which was much greater than the antero-posterior, is now much less, being only about four inches, whilst the latter is capable of becoming at least about five inches, instead of four as at the brim. These diameters may vary a little in different subjects, but not more than the diameters of the head vary in different infants at the full time. The reason for the fixedness of these diameters of the pelvis you will perceive, if you compare them with the diameters of the child's head to which they correspond during the birth. The transverse diameter, that is, from one side to the other, of the infant's head at birth, is from three and a half to four inches, and the longitudinal from four to four and a half, or five inches. Now, the transverse diameter of the head corresponds, upon the whole, to the antero-posterior diameter of the brim, and to the transverse diameter of the lower outlet; and the longitudinal diameter of the head to the oblique diameter of the brim and antero-posterior diameter of the lower outlet. I say, "upon

the whole," because the correspondence or apposition is not as exact as I have stated, but certain modifications take place which somewhat diminish the diameter of the child's head thus presented to those of the pelvis, so as to render the passage easier; whilst a further diminution is produced by the compression of the infant's head. These very adaptations, however, prove how very accurately the proportions of the head correspond to the space in the pelvis, and will enable you to understand that an apparently slight obstacle may have very serious consequences, if it diminish the diameter of the pelvis or increase the size of the infant's head.

But you will very naturally say that, however easy it may be to ascertain these diameters upon the skeleton or dead subject, it must be very difficult to do so during life. This is true, and it requires great experience to say that a pelvis is below or above the natural size, nor are the instruments that have been invented for measuring it of much use; so that if you should be asked the question, it will be well to give a very cautious opinion, and, better still, to advise the patient to consult some experienced accoucheur upon the subject.

But, at the commencement of labor, when the child's head, presenting at the brim, affords

you a means of comparison, it is not so difficult to perceive when it is too large; and then we have merely to decide whether the fault is in the pelvis being too small, or the head unusually large, and practically, the result is the same in both cases.

As a more minute knowledge of the pelvis does not seem to be necessary for the duties you have to perform, I shall now pass on to an equally concise account of the organs contained in that cavity.

The womb (or *uterus*) is a muscular cavity in which the infant is nourished until the term of nine calender months is completed, unless the usual course of pregnancy be arrested. During pregnancy the womb enlarges very much, its structure becomes looser, and its vessels increase in order to supply nourishment, through the placenta, to the infant. Possessing the power of contracting, or closing upon itself, in due time it expels the infant by a series of these contractions called labor pains, and afterwards it expels the afterbirth. When the womb is emptied, its contraction becomes permanent, and certain changes take place which result in the diminution of its bulk, and its restoration to its original form and size. The lower portion of the womb, called the *cervix* or neck, is about an inch long in the unimpreg-

nated state, and of a conical shape, projecting into the vagina, with its orifice at the point; this is called the *os* or mouth of the womb. During the pregnancy the neck is gradually shortened, until at the ninth month it has disappeared, and its orifice forms the lower termination of the enlarged uterus at the upper end of the vagina, but not projecting into it as formerly.

Of the contents of the pregnant uterus, the most important, of course, is the infant, which is there gradually developed until the time of delivery. Its nourishment is principally by the afterbirth (*placenta*), a temporary organ for the circulation of the blood, and which is attached to some portion of the inner surface of the womb. In the majority of cases the child lies with its head downwards, bent upon the chest, its arms folded, and its knees bent upwards. It floats in a quantity of fluid (*liquor amnii*) contained within the membranous sac or bag called the *amnion*, which sac is contained within another in contact with it during the latter months, called the *chorion*. In addition to the use of the *liquor amnii* in maintaining an equable temperature, in guarding the infant from shocks, and, perhaps, at an early period, in affording nourishment to it, we shall see presently that it is of great service in the

dilatation of the *os uteri* (or mouth of the womb) during the first part of labor.

The *placenta* or afterbirth grows from the chorion, and is attached to the wall of the uterus, or in some cases over the os uteri. It is about eight inches in diameter. It is the chief means by which the fœtus is nourished. From its centre, generally, proceeds the *funis* or navel string, about eighteen inches long and half an inch thick, serving as the medium of communication between the mother and child, by means of the blood-vessels it contains. It is generally free, but sometimes we find it twisted round the neck, limbs, or body of the child. It is of great importance that it should not be compressed, as that would destroy the child.

Although the structure of the womb and *vagina* (the passage from the womb externally) is very different, yet they form a continuous canal, and the latter, though ordinarily of small width, is capable of sufficient distension to admit of the passage of the child, after which it returns speedily to its natural condition. Its length is from four to six inches, so that every part of it is within reach of the finger, and we can learn, by examination, its exact condition. The orifice of the vagina is ordinarily small, but extremely distensible and

sensitive. Above, and in front of the vagina, runs the *urethra*, or canal leading to the bladder, and its orifice is a short distance above the orifice of the vagina. With the situation of this opening every midwife should be acquainted.

Behind the posterior edge of the orifice of the vagina, we find the lower outlet of the pelvis closed by soft tissues of various kinds; near the moveable coccyx is the *anus*, that is, the orifice of the *rectum* or lower gut, protected by circular muscles of its own; and the space between the anus and the vagina is called the *perineum*, with which you will have a good deal to do. It is formed of very elastic materials, though firm and resisting, especially in those who have never borne children. It is clear that, in order to admit the passage of the child, this structure must either yield to distension, or be torn. It is intended to distend, and in most cases it does so; but under some circumstances there is great danger of laceration, and in others this actually takes place. A very important part of your duty in conducting a labor is to endeavour to prevent this occurrence.

CHAPTER III.

SIGNS OF PREGNANCY. SIGNS OF LABOR.

In the present chapter I propose to speak of the signs of pregnancy, the general management of the pregnant state, and the signs of approaching labor.

For obvious reasons it is extremely difficult to fix upon the date of the conception; indeed, the best writers are not agreed whether it is more apt to take place immediately before or immediately after menstruation. Probably, therefore, the usual mode of dating it a fortnight after the last menstruation is correct enough for practical purposes; and if, in addition, you find that quickening occurs four months and a half or thereabouts afterwards, you will be pretty accurate in fixing the period of delivery at nine calendar or ten lunar months, or forty weeks or 280 days from the first date. There is always, of course, a degree of uncertainty, especially with the first child, and therefore it

is better for a lady, in making preparations, to calculate the shortest possible time, so as to be ready.

Very soon after conception, certain changes are produced in the system, which give rise to local or general symptoms, which, as they are regular, and not all present from any other causes, are regarded as signs or proofs of pregnancy. Some of these depend upon the report of the patient herself, and you cannot place very much reliance upon them if she have a motive for deceiving you: for example, if she, being unmarried, wishes to avoid the suspicion of pregnancy, she may suppress them, or give a false account of them; or, on the other hand, if she wish to prove herself pregnant, she may invent some and exaggerate others. Other signs are independent of the patient's report, and of these we can judge, but then they may, individually, all be produced by other causes, except two; so that whilst on the one hand you are carefully to guard against the patient's deceiving you, you must also take care not to deceive yourself. I shall now enumerate these different signs.

1. The first effect of conception is to stop the monthly discharge (*menstruation*), and if the patient be married, it immediately excites suspicion, and if confirmed after a time by other

signs, it is of great weight. But you must not forget that it may be caused by fright, distress, cold, and many other things. Sometimes, though very rarely, menstruation continues regular after conception, so that you should hesitate to trust to this sign alone, as otherwise you may make mischief.

2. Soon after the patient has conceived, about the sixth week, she finds her stomach sick and uncomfortable, especially in the morning immediately after leaving her bed, from which this sensation has been termed "morning sickness." It is generally only in the morning; and after vomiting, the patient may breakfast and continue free during the day. It lasts about six weeks, or perhaps up to the period of quickening: but it varies a good deal; with some it continues all day, with others it occurs only in the evening and night; or it may last for months, or, lastly, it may be so severe as to threaten life. On the other hand, even morning sickness may occur from other causes. You cannot, therefore, trust to this alone, nor even along with the suppression of the courses, although the one certainly strengthens the suspicion excited by the other, especially if the patient be otherwise in good health.

3. About two months after conception a change takes place in the breasts. They enlarge,

and have a firm, solid, and knotted feel, and the woman complains of tingling and stinging pains in them. The nipple becomes more prominent, and with the circle (*areola*) round it, acquires a deeper color, and the little pimple-like glands upon the areola are more marked. There is frequently, as pregnancy advances, a secretion of milk, or something like it, which escapes from the nipple, and stains the linen. Some of these changes may occur without pregnancy, or may be very slightly marked, although the patient be pregnant. They, therefore, are not proofs of pregnancy, but only additional evidence of its probability. I am, however, inclined to lay great stress upon the knotty, solid, glandular feel, as I have never seen it well marked, except in pregnant women.

4. Somewhere about the middle of the fourth month of pregnancy, the mother "quickens," as it is called, on the supposition that at that moment, the child became alive or "quick." This is simply a popular delusion. The child is alive, in the fullest sense of the term, from the moment of conception, but the mother first perceives its *movements* when she quickens, not because it never moved before, but because she could not feel them, owing to the situation of the uterus. At first, this quickening is like a feeble pulse in the lower belly, gradually in-

creasing in strength, until it becomes perceptible on placing the hand, especially if cold, on the abdomen. Now, when this sign really occurs, it is more conclusive than any of the preceding. But, you must remember, that you depend upon the accuracy or veracity of the patient for the information, at an early period; and, moreover, that something so like these movements occasionally occurs as to deceive even the patient herself, as well as the medical man. On the other hand, as quickening sometimes does not occur till the sixth month, the patient may be really pregnant, and yet this sign not be present at the usual time.

5. After the patient has quickened, the tumor formed by the enlarged uterus may soon be perceived above the pubis, rising gradually out of the pelvis, until at the sixth month it reaches the navel, and by the ninth it fills the whole abdomen. The feel of the enlarged uterus is firm and elastic, very different from the feel of the abdomen distended by flatulence or fluid; but the womb may be enlarged from other causes than pregnancy, and there are other tumors which it is hard to distinguish by their feel alone from the pregnant uterus. However, the appearance of the tumor, shortly after quickening, in addition to the other symptoms already mentioned, completes a body

of evidence which would justify you in pronouncing a patient pregnant.

6. So far, then, your judgment must not be decided by any single symptom, or even by two, but by the regular succession and presence of several, coupled with the fact that you can detect no other cause for their production. After the fourth month, it is quite possible to hear the pulsation of the fœtal heart by means of the stethoscope. If, therefore, the other signs leave you in doubt, and the case be one of great importance, or involving a suspicion of criminality, you should have the patient examined by a competent practitioner, who will either confirm or correct the opinion you may have formed.

There are other signs of pregnancy generally enumerated, but they are either of little value or belong rather to the sphere of the medical man than the midwife.

During pregnancy, especially the latter part, patients often suffer from constipation, piles, cramps, swelling of the legs, and varicose veins. For the first, gentle doses of medicine should be given with sufficient frequency; for the second, an appropriate ointment should be used; gentle friction will relieve the third; rest in the horizontal position, with gentle friction, the fourth; and a bandage or elastic stocking the fifth complaint.

Let us now say a few words upon the *management* of pregnancy. You are not to regard it as a diseased state, requiring medical treatment necessarily; on the contrary, it is a natural condition, and needs little more than common sense, in the majority of instances, to conduct it to a happy termination. A certain amount, rather less, perhaps, than at another time, of exercise should be taken; as the stomach is irritable, or at least more easily disturbed than usual, some care should be taken to avoid those articles of diet likely to disagree; longings, as they are called, may be, to a certain extent, gratified, provided they are not forbidden by common sense; and the dress should be comfortable, according to the season of the year and the weather. I need not say that the personal vanity, which seeks gratification in well-fitting clothes, must give way to the necessity for freedom, looseness, and ease in dress. The stays, for example, should be altered entirely; the front bone or steel should either be removed or exchanged for one much slighter; a gore of elastic should be inserted on each side, so as to allow of expansion; and the breasts should be freed from all possibility of pressure. If the patient intend to suckle her child, she should every morning and evening, for about two months before her confinement, wash the nip-

ples with soap and water, dry them, and then bathe them with equal parts of brandy and water, or brandy and strong green tea: this will harden the skin, and diminish the probability of sore nipples. The bowels should be carefully regulated, if necessary, not by large doses of medicine, but by moderate ones repeated. Take care and do not mistake; an irritable condition of the bowels, with small, frequent motions, is quite consistent with large accumulations, and requires medical advice. Powerful purgatives must never be given to a pregnant woman, for fear of bringing on labor. Small doses of castor oil, or Gregory's powder, or Epsom salts, will answer in most cases.

The spirits of a pregnant woman are very variable; it will, of course, be your duty to promote cheerfulness, by suggesting to her the many happy considerations connected with her condition, and by abstaining from all unpleasant histories, recitals of bad cases, &c. Quiet and cheerfulness, fresh air and exercise, by promoting the healthy performance of the bodily functions generally, will naturally favour the successful completion of pregnancy. But some deviations from the natural course may occur, some symptoms may arise, which may indicate that all is not quite right; and I wish to caution you against the attempt to treat such

yourself. It is not likely that your medical knowledge will be sufficient, and you may lose time at least, which, in some cases, may result in serious consequences. Whenever, therefore, any unusual or threatening symptom occurs, be the first to advise that a medical man be consulted: by so doing, you will promote your own interest, as well as that of the patient.

At the time you are engaged as midwife or nurse, you will be also consulted as to certain preparations for confinement. If possible you should secure a large, quiet, airy bed-chamber, a bed without a roof, or with half a roof, with a comfortable hair mattress, with ample means for order and tidiness: let the patient have castor oil in the house, and a sufficient supply of bed linen, napkins, &c. A dressed sheepskin, or a large square of waterproof cloth, should be provided, with diaper for binders, strong pins, &c. See that the infant's clothes are correct—with strings, instead of pins; and prefer rather an abundance of inner clothing to external finery.

Now let us turn to the *signs of approaching labor*, which are various and of unequal value.

1. *Subsidence of the abdomen.* During the last month of pregnancy, but especially during the last fortnight, the abdomen becomes apparently less, and the womb falls downward and

rather forward, so that the waist becomes less and the figure more prominent. This is, in some measure, owing to the relaxation of the abdominal walls, and partly to the settling down of the uterus in the pelvis, and is less remarkable in first pregnancies, but very obvious subsequently; and sometimes the tilting forwards is so great as to require mechanical support.

2. *Frequent passing water.* Partly from the pressure of the womb upon the bladder, and partly from the sympathy between these two organs, the patient, during the last month, is unable to retain her urine for any considerable time, and generally has a desire to void it frequently. This symptom also occurs during the fifth month and from the same causes.

3. *Griping, kneading, and diarrhœa.* From similar causes, *i.e.*, partly from the pressure of the enlarged womb upon the bowel, and partly from sympathetic irritation, there are occasional griping pains, a desire to go to stool, or perhaps purging; the latter is seldom excessive, but rather irritating, and the quantity passed is generally small. These symptons rather indicate that the patient is near the end of pregnancy than the actual approach of labor.

4. *Painless contractions of the womb.* When the time of labor approaches, however, the

patient observes that the abdomen now and then becomes unusually hard and prominent, with a sensation of squeezing, though without pain. This is clearly uterine action, and indicates the near approach of labor, whether at the full time or prematurely; as, if not interfered with, these contractions are repeated until they become painful, and so merge into labor pains. If you observe them before the end of pregnancy you should immediately advise medical assistance.

5. *The Shews.* This consists in a discharge of glairy mucus from the vagina, occasionally tinged with blood. It is ordinarily observed only during the day or two preceding labor, and varies a good deal in amount. It is, perhaps, the best sign of the immediate approach of labor, and if, at the same time, the painless contractions be observed, you may be sure that labor is very near, and had better make your arrangements accordingly.

There are other signs popularly believed to indicate the same event, such as swelling of the limbs and external parts, cramps, freedom from oppression, sense of lightness, &c., which may occur at this period, but which have but little value as signs.

CHAPTER IV.

CLASS I.—NATURAL LABOR.

I SHALL now describe the process of labor, but before doing so it is necessary to adopt some classification as a sort of index, so to speak, of the subjects upon which we are to treat. Unless in a more scientific work than the present, it is not of much consequence whose classification we adopt; in the Rotundo Hospital, Dr. Denman's is preferred, and it is as follows:—

CLASS I.—NATURAL LABOR.

CLASS II.—DIFFICULT LABOR.

Order 1, *from deficient or irregular action of the uterus.*

,, 2, *from rigidity of the soft parts.*

,, 3, *from disproportion of size between the pelvis and child.*

,, 4, *from disease of the soft parts.*

CLASS III.—PRETERNATURAL LABORS.

Order 1, *Presentation of the breech or inferior extremities.*

„ 2, „ *of the shoulder or superior extremities.*

CLASS IV.—ANOMALOUS OR COMPLEX LABORS.

Order 1, *attended by hæmorrhage.*

„ 2, „ *by convulsions.*

„ 3, *with plurality of children.*

„ 4, *Descent of the umbilical cord.*

„ 6, *Rupture of the uterus or vagina.*

I may, perhaps, be excused for preferring the following:—

CLASS I.—NATURAL LABOR.

CLASS II. UNNATURAL LABOR.

Order 1, *Tedious Labor.*

„ 2, *Powerless Labor.*

„ 3, *Obstructed Labor.*

„ 4, *Deformed pelvis.*

„ 5, *Malposition and mal-presentations.*

„ 6, *Plural births. Monsters.*

CLASS III.—COMPLEX LABOR.

Order 1, *Prolapse of the funis or umbilical cord.*

„ 2, *Retention of the placenta.*

„ 3, *Flooding.*

„ 4, *Convulsions.*

„ 5, *Lacerations.*

„ 6, *Inversion of the uterus.*

In this classification you perceive that the second and third classes of Denman are included under the head of Unnatural Labor.

Before proceeding, I should wish you to understand clearly what is meant by two or three words or phrases frequently used in the following pages:—

1. The *presentation* means the part of the child which comes first, or presents itself at the os uteri: thus we speak of head, breech, foot, or arm presentations.

2. The *position* of the child refers to the relation which the presenting part, the head, or breech, for example, bears to the pelvis of the mother.

3. The *stages of labor* is an arbitrary division of the whole process into portions or stages. The *first* or dilating stage begins with the first pains, and ends when the head passes through the os uteri into the pelvis; the *second* or expulsive stage ends when the child is born; and the *third* stage when the placenta is expelled.

It is of the very greatest importance to understand clearly these different stages of labor, as every labor, whether natural, difficult, or complex, exhibits them, and very often the importance of the symptoms depends upon the stage in which they occur.

Now let us consider the process of natural

labor; and I shall do so the more fully, because this class of cases will form the bulk of your practice as midwives, and also, because the more perfect your knowledge of this class of cases the more easily you will recognise any deviation from it. I shall first describe the ordinary course of natural labor, and then lay down rules for the conduct of both midwives and nursetenders. I have already mentioned the signs of approaching labor.

In *natural labor*, we assume that the expulsive force, the pains, are sufficient to bring the child into the world; that the passages are large enough, and that the child presents with the head. And consequently the definition may run thus: "Head presentation: the labor uncomplicated, and the process completed by the natural efforts within twenty-four hours." At the same time, I would observe that you must not lay too much stress upon the entire time occupied, as some natural labors may last more than twenty-four hours, and others, not so long, may be unnatural: it depends much more upon whether the time has been occupied by the first or second stage. Thus you see the importance of knowing how to distinguish each stage, and of noting carefully the beginning and end of each.

The beginning of labor is dated by the patient

from the time that the uterine contractions become painful; and this is quite correct, provided that the entire uterus be engaged, and that the pains recur regularly. There is a kind of irregular contractions, however, which are called "*spurious or false pains*," from their teasing the patient without advancing the labor. They arise from various causes, as over fatigue, improper food, constipation, cold, &c., and you will know them by their irregularity, by their commencing at the fundus, or top of the womb, and being of limited extent, by their not being accompanied by mucous discharge or "shews," nor pushing forward the "bag of the waters," nor dilating the mouth of the womb. Whenever you find the pains to possess these characters, you may be sure that they are spurious pains, especially if, as is often the case, the patient have not arrived at the full time; and you had better recommend rest, bland food, and attention to the bowels. If this be not sufficient, the family medical attendant will give you an anodyne draught.

The *true pains*, on the other hand, recur at regular intervals, but these intervals gradually become shorter; in other words, the pains become quicker, and also stronger. And although they begin in the back, generally, they spread round to the front, until the entire womb is

contracted and becomes hard. The result of this contraction is, that the "bag of the waters," as it is called, is pushed by degrees to the mouth of the womb, and gradually dilates it: at the same time, there is a pretty abundant discharge of mucus from the vagina. These peculiarities may almost always be observed, even at the beginning of labor, and when you find them, you may be satisfied that your patient is really in labor.

As the pains change their character as labor goes on, a convenient distinction has been made into "*cutting or grinding pains*;" and "*forcing or bearing down pains*;" the former are confined to the *first* stage of labor, and are short, piercing, and not very frequent at first; neither does the patient bear down with them, unless, very improperly, she be told to do so. As the labor goes on they increase, and often occasion as much suffering as the pains of the second stage. They cause the patient to cry out, and, perhaps, it is better that she should do so, to a certain extent; but she should be encouraged to control the expression of pain and restlessness within reasonable bounds. A refractory, noisy, restless patient certainly suffers more than a quiet, submissive one.

The "forcing, or bearing down, or expulsive pains" are very different, and are very well

described by their name. The patient is obliged to bear down; she catches hold of something, stiffens her body, holds her breath, presses with her feet, and does most effectually aid the uterine contractions in expelling the child. And whereas, with the grinding pains, the skin was cool, and the pulse quiet, but the patient restless and crying out, during the bearing down pains she cannot cry out, because she is obliged to hold her breath; she lies quiet in order to force; her skin becomes hot and bathed in perspiration, and her pulse quick. Thus, by the state of the skin and the cry alone, you will generally know in what stage the labor is.

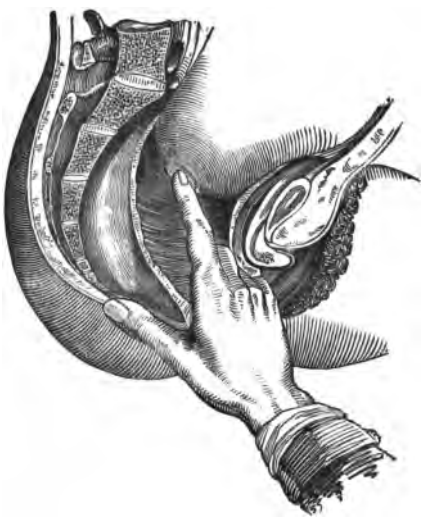
You will remember the division I have made into stages; as a general rule the waters come away about the termination of the first stage, and so may be taken as a sort of landmark. Now let us mention the principal symptoms which you meet with in each stage. I have just described the pains of the *first stage*—they are cutting, increasingly frequent, gradually becoming stronger, rendering the patient restless and irritable, often low-spirited, and requiring soothing and encouraging treatment. During this stage, also, the stomach often becomes irritable, and the patient may be troubled with retching or vomiting, which rather does good

than harm, as it relaxes the parts and diminishes the resistance.

During the first stage, shivering is apt to occur, and especially towards its termination just as the head is pressing through the os uteri. The pulse and skin are but little affected, at least not until near its completion.

If, during this stage, you place your hand on the abdomen, you will feel the womb very hard during a pain, and somewhat softer, though still harder than before labor, during an interval. It is also inclined forward in order to place the child's head in a favourable position for entering the pelvis. Further information will be obtained by an internal examination; but I had better first tell you how this is to be made. The patient should be placed on her left side, with the hips close to the edge of the bed: then, having oiled your right forefinger, you pass it (under the clothes) from behind forward, until you arrive at the orifice of the vagina, into which you introduce it, and direct it rather backwards and upwards until you arrive at the os uteri, which will feel like a small ring, and within which you will find the membranes protruding. You must be very careful not to press too roughly, or you will rupture them; but when they are relaxed, you can feel the presenting part of the child through

them. Thus you may ascertain if the labor be natural, and how far it has advanced, judging by the size of the os uteri, and its softness or hardness. If you keep your finger at the os uteri during a pain, so as to estimate its force and the effect it produces, you may give a



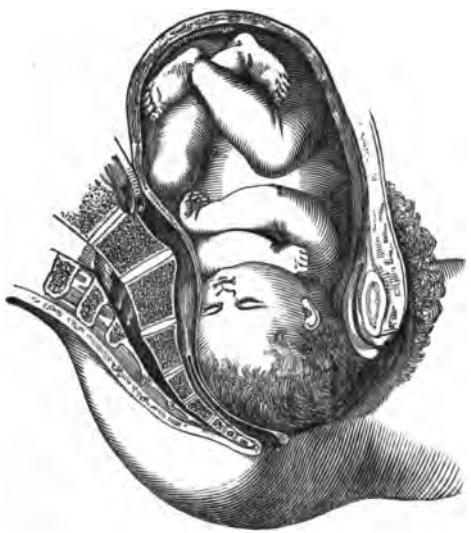
shrewd guess whether the labor is likely to be long or short. Of course you will also notice the state of the vagina, whether it is cool or hot, moist or dry, or whether there be any unusual obstruction, &c., and on withdrawing your finger, you will observe the character and

amount of the discharge. Remember, this examination is to be with gentleness and delicacy, without exposure or pain, and if all be right, it may not be necessary to repeat it during the first stage.

During the *second stage* the pains become longer, stronger, and more frequent, and are seconded by the efforts of the patient: the pulse is quick, the skin hot, and the face flushed. Vomiting sometimes occurs in this stage (though it is more common in the first), but if the labor have not been unusually prolonged, it is neither a bad sign nor injurious. The patient also feels a degree of heaviness or drowsiness, so that it is not uncommon for her to dose between the pains; and this should always be permitted. As the head passes downward through the lower outlet, it presses upon some of the nerves which supply the lower limbs, and may cause severe cramps in the thighs or calves of the legs which will be somewhat relieved by friction.

If an *internal* or vaginal examination be made during this stage, you will neither feel the bag of the waters nor the os uteri, as a general rule, for the former has been ruptured, and the latter has been drawn upward over the child's head; but you will touch the head (or whatever part presents) directly, and find it filling some portion of the vagina. During a pain you will

feel it descend a little, and go back when the pain ceases; but by the frequent repetition of this process, you will observe the head gradually come down, until it fill the pelvis and press down the perineum. At this time the progress



becomes slower, a great many pains seem to cause little advance, and this for two reasons: first, the head has to be adapted to the lower outlet by a change of position, and by compression, or moulding, as it is termed; and secondly (especially in a first labor), because it

takes time to dilate the soft parts. If the expulsion of the child through the lower outlet were effected very rapidly, the perineum would probably be torn, and the patient seriously injured. So far, then, from regretting that the termination of labor should be somewhat slow, we ought to recognise therein a very wise and beneficial arrangement.

After the pressure upon the perineum has gone on some time, it begins to yield, and you find it bulge out with each pain, and by degrees the head begins to appear at the orifice of the vagina, pressing forward, then receding, but steadily gaining ground, until with a stronger pain than usual, or a double one, it passes into the world, generally with the back of the head directed forwards towards the pubis, and the face to the perineum; but this position almost instantly changes, and the face is turned upwards to the right thigh of the mother, or downwards towards the bed: the former is however the more frequent. This change is the result of the shoulders having pressed into the pelvis, and as, in order to pass out, they must bring their transverse diameter to correspond to the antero-posterior diameter of the lower outlet, it follows that such an alteration will cause the face to turn upwards or downwards. The next pain, after the head is born, effects this;

and presses the shoulders on the perineum, over which they pass with much less difficulty and delay than the head; and are followed immediately by the body of the child, which completes the second stage. It is important for you to remember this second distension of the perineum, for if proper attention be not paid during the passage of the shoulders, the perineum, that escaped injury from the head, may be torn by the shoulder.

After the birth of the child, a short time of rest occurs, and then the womb again contracts, and pains are felt, but not so severe as formerly. This is for the expulsion of the afterbirth which is generally separated from the womb by the pains which expel the child, and only needs a further contraction to be removed entirely from the uterine cavity. After the birth of the child, there is always more or less discharge of blood, which continues till the placenta comes away, and then generally, though not always, diminishes. If the interval between the expulsion of the child and the placenta be long, the latter will be accompanied by clots. It is always of importance to keep watch over the amount of this discharge, in order that a remedy may be applied if it be excessive.

If the patient have had children, the pains return in an hour or two, and continue at in-

tervals for a day or more, but they are seldom very bad, and after suckling has been fairly established, they subside. These are called "*afterpains*," and, though unpleasant, are of great use in expelling any clots which may be in the womb, and in preventing hæmorrhage. After its contents have been expelled, the womb contracts, and may be felt as a hard tumor at the lower part of the belly, about as large as the infant's head.

MANAGEMENT OF NATURAL LABOR.—Now that we have discussed pretty freely the symptoms of natural labor in the different stages, let us consider what is your duty: *i.e.*, what you have to do when you take charge of a patient, either as *midwife* or *nurse*.

First, as MIDWIFE, entrusted with the medical charge of the case, to a certain extent. There is not much to be done in the first stage of labor: you will, probably, be called at the beginning, before the patient is very bad; and it is not necessary, especially if it be in the daytime, that she should go to bed immediately, as you will probably find the pains stronger and more frequent whilst she is sitting up. She may walk about the room a little, and occupy herself, so as to relieve the weariness of waiting. You need not interfere at this period with her

ordinary diet, but she is better without stimulants, and you should make sure that the bowels are free, if necessary, by a dose of castor oil, or an injection of some bland unirritating fluid, such as strained gruel, or warm water and sweet oil. Before the labor is much advanced, it will be desirable that you should make an examination in the way I have already described, so as to ascertain the presentation state of the os uteri, &c. Indeed the first thing you should do when called to a case of labor is to ascertain whether the presentation be natural or not. If the waters have not come away, and especially if the os uteri be but little dilated, you may hardly be able to say whether the head or the breech presents, but at least you may make sure that neither the hand nor the foot presents, and that is something. When the waters have escaped, and the os uteri is fully dilated, you may generally distinguish the head from the breech by its being harder and rounder, and by your being able to feel the sutures. The breech is also marked by the cleft between the buttocks, and the organs of generation, which may be felt as the child descends. By this examination, you will also learn the state of the vagina, whether it is cool or hot, dry or moist, and still more the state of rigidity or relaxation of the perineum, which may assist you in form-

ing an opinion upon the character and probable duration of the labor.

Let me repeat, what I have said before, that every examination should be made quietly, gently, and without the least exposure of the patient. If all be right, it will not be necessary to examine again during the first stage, until the waters escape; and if the patient be up, see that she is comfortably clothed, and yet that her dress is so arranged that she can undress quickly. Quiet and cheerful conversation, a cool room, mild diet, slight occupation, and a hopeful view of the case, will be all that is necessary until the second stage sets in. She should never be encouraged to bear down, or "assist herself," as it is termed, until the second stage begins, and the pains force her to do so; nor is her crying aloud objectionable, unless it be excessive and she lose all control of herself. She may also choose her position, and either sit, stand, or lie down during the pains.

When the waters break, unless this occur prematurely, the patient should, generally, go to bed; but previously, the bed must be *made* so as to protect it from moisture, and to admit of the soiled linen being removed at once, and without disturbing the patient, and this is the way you should do it. Under or over the

lower sheet (for it does not signify which), you should spread a tanned sheepskin, or a yard and a half square of oiled silk, or waterproof cloth, at the right side of the bed, where the hips are to be, and hanging a little over the side; upon this, the end of a sheet folded twice lengthwise, and upon this again, a sheet folded four times square, so that, after labor is over, this upper sheet can easily be removed, and if the under one be soiled, it can be drawn out so as to bring a dry part under the patient, whilst the soiled portion is rolled up and pinned. When the discharge has moderated, say in six or eight hours, this sheet and the leather may be removed, and the under sheet and bedding will be found perfectly dry, and may easily be kept so by the proper use of napkins.

When the patient is placed on the bed thus made, with her hips close to its edge, the under portion of her night-dress should be turned up above the hips, and a folded napkin or two so placed as to secure that the waters or discharges do not flood the bed, and make the patient uncomfortable, or render a change of dress necessary. Thus arranged, you will find the patient not only protected from discomfort at the time, but afterwards she can be made quite comfortable, without fatigue, exposure, or exertion.

The *second* stage having set in, you may make another examination, to see how labor is getting on, and you will find the head through the os uteri, or nearly so, and, with each pain, pressing downwards. As we are now assuming that all is right, you will have little to do until the head is on the perineum, nor need you make frequent examinations. Keep the room quiet and cool, and give the patient some cool drink occasionally, a little thin gruel, milk and water, whey, or weak tea, whichever she prefer; see that the bladder is emptied at intervals; do not mistake the escape of "the waters" for this; and if the bowels have not been moved previously, give an injection of warm water or thin gruel. You will encourage her more to bear her labor courageously, by a frank, simple statement that all is right and going on favorably, than by fallacious promises of speedy delivery, which you know, and she will soon find out, not to be true.

As the pains increase in strength, they compel the patient to "bear down," and generally she does not need to be told to do this, for she cannot help it; but you will do well to direct her only to do this so long as the pain is severe; as it declines, it will be of no use, and only occasion fatigue. It is usual to fasten a sheet round the bed-post for the patient to pull, and

sometimes to place a box at her feet for her to push against. The latter is objectionable on many accounts: it tends to disturb the position of the hips, which should be maintained, and it may remove the perineum from your hand at the moment when support is most essential; and I think that the voluntary rigidity of the thighs and hips, thus occasioned, rather hinders the escape of the child's head. There is no objection to the sheet, if you take care that the patient do not draw herself beyond the protected portion of the bed. I think, however, that the hand of a person sitting opposite to her is still better, as she can pull as much as she wishes without changing her position. Unless under peculiar circumstances, it is wrong to have any one sitting on the bed, or leaning over the patient, as it adds much to her heat and discomfort. As the labor advances, the patient becomes very hot, and you may remove some of the upper bed-clothes for a time.

Before the head presses on the perineum, you will have time to see after one or two other matters which are necessary; half a dozen strong pins, a pair of scissors, some ligatures of thread or tape or twine, and the binder, together with a flannel receiver for the child, and a light shawl to throw over the patient's shoulders, should be in readiness. The

binder should, generally, be about half a yard wide, and from a yard and a half to two yards long; but it is best to make the binder according to measure, taking for its length what will go round the woman's hips, with two or three fingers' breadth additional, to allow for overlapping; and for its breadth, taking from just beneath the breast to the level of the hip joint. It is usual to make the binder of strong diaper or twilled calico, doubled and stitched at the edges. If the lady is to be confined in the winter, a very good binder may be made of thin "lining flannel," and one fold of diaper or twilled calico. A strip of calico stitched to the binder behind and passed between the legs, below a napkin, and then pinned in front, is useful in keeping the binder straight and the napkin in its place. Of whatever material it is made, it should be well washed and dried, but not starched, before it is required for use. There are other binders ingeniously contrived with buckles and straps, and cut to fit the shape, but I have not found them as easily put on or removed, nor do I think that they make as firm pressure as the simple binder above described.

When the head presses on the perineum, it will be time for you to direct your attention to that part, or, as it is termed, to "support the

perineum;" and that you may do so intelligently, it may be well to consider what it is you want to effect. Not, surely to offer an additional obstacle to the descent of the head or hinder its passage through the external orifice, nor to dilate this opening; but, simply and solely, to offer some gentle support, externally, against the pressure internally, to guard against the sudden escape of the head, to guide it forward, and, at the same time, to press the integuments gently *forward*, but never backward. You will do this most effectually, I think, with the left hand, having the right free for other purposes. Cover the back of the left hand with a folded napkin, and place it obliquely across the perineum, so that the knuckles shall be applied to the coccyx or end of the sacrum, and the back of the fingers to the perineum. When the head passes downward, the hand thus applied will necessarily yield, even while giving support (which is just what is wanted), and direct the head forward as if it were a continuation of the sacrum. And when you feel the head passing through the orifice, by pressing the integuments forward (instead of drawing them back), you will relax the tension, and render more easy the dilatation. This support should be applied only during a pain, but with every pain, as labor

advances towards its termination; and whilst the left hand is thus employed, with the right you can ascertain the progress made by each pain, and when the head passes out you have a hand disengaged to receive it, and carry it forward, allowing it to make the usual half turn. The left hand is to continue at the perineum until the shoulders pass out, for I am satisfied that this part is as frequently torn by the shoulders as by the head. According as the child is expelled from the uterus, it may be gradually carried forward into the bed, clear of the mother; no force should be used to hurry the birth, or to draw out the child, irrespective of the pains.

But it is only right to mention, that very many persons prefer using the right hand to support the perineum, and in such case the ball of the hand is placed on the perineum, whilst the thumb is extended above, and the fingers below, on either side. It is of little consequence which hand you use, provided you afford the support necessary, and do not overdo it; but if you are alone, there is an advantage in using the right, as the left will be wanted for another purpose, which will be better done by another person, when possible. As soon as the head is born, a hand, your own or another person's, should be placed upon the

uterine tumor, following it down as it diminishes, and making firm pressure upon it when the body of the child is being expelled; this pressure should not be removed until you apply the binder. If this be carefully done, I am satisfied that you will rarely, if ever, have "retained placenta," except from disease. As the hand must be kept on the uterus for some time, you should throw a light shawl or small blanket over the patient's shoulders and chest, to guard against cold.

Suppose, then, the pressure over the uterus duly made by an attendant, and the child born, it ought to cry immediately; but if it do not, and the cord pulsate well, you may let it rest a little on its back exposed to the air. Perhaps it may cry and breathe, but with a rattling noise, from a quantity of mucus in its mouth; this you should remove with the finger, or, if it be very abundant, you will secure its evacuation more completely by raising the child and holding it for a few moments, with its face downwards. Further connexion with the mother is unnecessary, when breathing is fully established, but you must be very sure that this is the case before you divide the navel-string. If you do so too soon, you may find the breathing and crying gradually diminish until they cease altogether. One ligature—

the only essential one—should be applied about an inch and a half from the navel, and drawn very tight; the other, an inch or two nearer to the placenta; and the cord divided between them. The object of the first ligature is to guard against the hæmorrhage from the navel, which might destroy the child; and after the navel-string is divided, you should carefully examine the extremity, so as to be sure that there is no bleeding from it. If there be, and it will sometimes occur, owing to the escape of the jelly-like fluid, and the consequent shrinking of the funis, another ligature must be tightly applied nearer to the navel. It was for this reason that I recommended you to have an inch and a half of navel-string; if you leave more, you will find it an inconvenience afterwards. Having thus separated the child, it may be rolled in flannel, and placed on the bed until you are ready to dress it.

You will next proceed to apply the binder. Roll up about the half of it, and pass it underneath the patient to an assistant, who will unroll it, and pass over the end of it to you. Take care that it is fairly and smoothly under the hips; then, drawing it tight over the lower part of the abdomen and just below the prominence of the hips, pin it there first; and

drawing it equally and firmly over the upper portion, fasten it by two or three other pins at equal distances from each other, so that a pleasant and comfortable, yet firm, pressure may be made.

I may as well mention here the mode of making additional pressure, by pads or compresses. If this should be necessary, and you will know the reasons for them by-and-by, fold a napkin *in a roll* first, and place that across the abdomen, *above the uterus;* then fold as many more as may be necessary, *in squares,* and place them *over the uterus:* the former will prevent the womb from ascending in the abdomen, and the latter, from enlarging anteriorly. The binder is then to be drawn tightly over the whole. You will find that in this way you can make any amount of pressure you please. I wish to impress upon you very strongly, that this, and almost every other midwifery operation with which you are concerned, may, and ought to be done, with little or no exposure, or uncovering of the patient: this is not only an offence against delicacy, but the patient runs great risk of catching cold, and cold in childbirth is a very serious thing indeed.

The pressure upon the uterus, as I have mentioned, is to be kept up steadily, with the hand,

until you are ready to apply the binder; and after the binder is applied, it should be renewed until the afterbirth is expelled. Very soon the uterus will be perceived to grow harder under the hand; this is a contraction to expel the placenta, and whilst pressure is being made, after a lapse of twenty minutes, you may pass a finger into the vagina, to see if the placenta be there, or at the os uteri, and if so, you may take hold of the funis, and draw down gently. If it yield, you may continue until the afterbirth appears; but if it do not yield, you must not exert any force, lest you should break the cord, or do other mischief; but let the patient rest, keeping up firm pressure on the uterus until the pain returns. I must caution you strongly against much pulling at the funis, as by so doing, you may—1, break the funis; 2, bring on hæmorrhage; 3, cause hour-glass contraction of the uterus; or 4, possibly invert the uterus, *i.e.*, turn it inside out, an accident involving great danger. When the afterbirth appears at the external orifice, receive it in your hand, and by twisting it round, as you gently draw downwards, you will secure that no portion of the membranes is left behind. After the expulsion of the afterbirth, the hand may be removed from the uterus, and the binder tightened, if necessary. If there have been

much discharge, the soiled napkins should be removed, and the upper folded sheet taken from under the patient, and a dry portion of the under one drawn beneath the hips. If the discharge have been moderate, there is no occasion to disturb the patient for an hour or two, but then these soiled things should be removed, and the patient be made comfortable.

There are two questions the patient is almost sure to ask, and which you should be prepared to answer: *first*, whether she may change her position, by turning on her back, or on the other side? There can be no objection to this in ordinary cases; but if there be any disposition to flooding, she had better remain as she is, that being the most convenient position; or if she be in a great mess from discharge, she had better wait until this is removed and she is made more comfortable.

The *second* question is, whether she may go to sleep? Against this there is a prejudice amongst nursetenders, on the ground that if allowed to sleep without being disturbed by examination, and the flooding come on, she may faint without its being discovered, and perhaps die without assistance. But if the midwife or nursetender properly watch the uterus and the discharge, so as to ascertain, from time to time, that there is no flooding, there is no reason why

the patient should not sleep, and certainly there is nothing which will refresh her so much.

Having now mentioned what you are to do, let me conclude by a few cautions as to what you are *not to do.*

1. You are not to amuse your patients by accounts of the wonderful and dangerous cases you have attended, even though the relation may be to your own credit.

2. You are not to relate anything which may tend to depress your patient, or render her anxious and uneasy.

3. You are not to tell lies, or make promises as to her labor being soon over, even for the purpose of cheering her, as she will surely find you out, and will not afterwards believe you, even when you tell the truth.

4. You are not to put her to bed during the first stage, nor encourage her to make bearing down efforts at an early period, because they can do no good and will fatigue her.

5. You are not to give hot or stimulating diet or drinks, under the belief that they will quicken the labor.

6. You are not to allow too many visitors in the room—one or two are quite enough: hot rooms, hot drinks, many visitors, and useless efforts are most pernicious, and may easily

convert a natural labor into a tedious one, if not into something worse.

7. You are not to examine too frequently once you are satisfied that the presentation is natural, or you may irritate the parts, and lead the patient to suppose that something is wrong.

8. You are never to rupture the membranes, unless you find them filling the vagina, and are quite sure that the head presents.

9. You are not to keep the patient too hot during the second stage.

10. You are not to mistake the dribbling of "the waters" for passing urine, but make sure that the bladder is emptied at intervals.

11. You are never to attempt to dilate the parts, under a mischievous notion of preparing the passage for the exit of the child.

12. You are not to draw backwards the perineum, nor to press back the head of the child when it is passing through the external orifice.

13. You are not to divide the navel-string before the child cries and breathes freely.

14. You are not to use any force in drawing down the funis in order to remove the placenta, nor to do so at all sooner than fifteen or twenty minutes after the birth of the child.

15. You are to apply the binder, remove the soiled linen, and make the patient comfortable, without exposing her to cold.

II. As Nurse.—Of course, much of what I have said as to the duties of a midwife, will equally apply to nursetenders; but, in the class of society where a nursetender is employed, there are matters to be attended to which are not much cared for by the persons who are satisfied with a midwife alone; and moreover, although as midwives you stand alone, as nursetenders your office has an important relation to the attending accoucheur. A good nursetender is the greatest possible comfort and assistance to a medical man, but a careless or ignorant one may occasion irreparable mischief. Remember, then, that your position as to the medical attendant is quite secondary; you are to receive and implicitly obey his orders; you are to consult and defer to him upon every question which may arise, and you are to give him instant notice of any important change in the condition of his patient. Never allow yourself to canvass the merits of different practitioners; never repeat the foolish gossip you may hear concerning them; never interfere with the choice of the person who employs you; but to all medical men be the same respectful, intelligent, and obedient assistant, and you will have your reward.

As nursetender, you will, of course, be summoned before the attendance of the accoucheur is considered necessary, and your object should

be, on the one hand, to avoid calling him unnecessarily early, and, on the other, to make sure that he is summoned in time. In order to decide upon this, you must take into consideration the distance at which he lives, the character of the patient's former labors, the rate of progress of the present labor, and the presentation. If, for instance, it be a first labor and the presentation natural, you may wait until the waters break, or the pains change their character, provided the distance be not considerable. If the former labors were rapid, you must send so much the sooner; and if you discover any other presentation than the head, or if you cannot make out the presentation, you must send instantly, no matter how little progress may have been made. To ascertain this, of course you must make an examination in the way I have described; but having done so, it will scarcely be necessary to repeat it, as the change of pains and of outcry will inform you when the second stage begins, and the doctor should then be in attendance.

On your arrival at the patient's house, you will ascertain her present state, and not put her to bed, unless for examination, during the first stage. If labor be only beginning, and it be day-time, she had better not remain in her bedroom, but leave that to be aired and settled.

Or, if she remain in her room, it should be kept fresh, and everything in it arranged in a neat and orderly manner. The various things that are likely to be wanted, such as sheets, napkins, cold cream or lard, hot and cold water, baby's clothes, &c., should be placed within reach, and aired, if necessary. The binder, pins, ligatures, and scissors should all be ready, and the bed made as I have described. All this may be done neatly and quietly, without hurry or parade. Hurry and fuss will agitate and disturb the patient, and your object should be to cheer, comfort, and encourage her. She will, no doubt, be very glad to talk to you, and if it be her first time, to find out from you something about what she has to go through. If all be right, you have an opportunity of encouraging her, but I would advise you rather to avoid details. Above all, neither tell her the histories of other patients, nor make promises as to the period of her being well; as if she once find out that you have been mistaken, or have been deceiving her, it will depress her, and she will put no further trust in anything you tell her. And further, let me add a caution against gossiping, either with the patient's friends or servants, about anything you may have seen or heard in other families; it will certainly be repeated, and you will inevitably get into disgrace.

A nursetender is necessarily a confidential person, above a servant, and trusted with many things as a friend; and she should conscientiously regard as sacred all the information she may thus obtain. I have known several excellent women injure themselves by a neglect of this rule. A cheerful, kind, and genial manner, marked by respect for others, and therefore for yourself, with orderly, neat habits, ready usefulness, and confidential trustworthiness and truthfulness, are principal recommendations in a nursetender.

But to return: on your arrival you should ascertain that the bowels have been recently moved, or if not, give medicine or a plain enema of warm water or thin gruel, and throughout the labor take care that the patient pass water at intervals. On the arrival of the medical man, of course the patient is in his hands, and you receive your orders from him. Your chief duty will be to have everything at hand which he may want, so that there may be neither delay nor hurry. If it should happen either that you have miscalculated the rate of progress, or that it has increased unexpectedly, or that the doctor has been delayed, you must act as midwife in the way I have laid down; but do not, in order to gain credit, attempt to hasten the birth of the child, or the expulsion of the placenta, lest

you should do mischief. Let matters take their natural course, and do you take care to satisfy the doctor that you did not voluntarily delay too long: no accoucheur would willingly employ a nursetender who neglected to send for him in time.

If the doctor be present, during the second stage, your place is on the opposite side of the bed, and you can give the patient you hand to pull until the head is born, when it is your duty to make steady and firm pressure upon the uterus as it contracts and descends; and this you should do, not by pressing it directly towards the spine, but by enclosing the fundus of the womb in your hand, and pressing it downwards towards the pelvis. Then you will follow down the uterus until the child is born, and you will keep up this pressure until the binder is applied, and afterwards you can resume it if the doctor wish. You should always have a vessel ready to receive the after-birth. The most convenient thing for this purpose is a small basin.

During the labor, but especially during the second stage, the patient suffers more or less from thirst, and the most suitable drink will be whey, milk and water, or weak tea, or a moderate quantity of cold water. From a mistaken notion of keeping up the strength, wine and

water is sometimes given; but I believe this to be unnecessary, and I think it will rather be found to increase the heat, and sometimes to interfere with the labor pains. During the early part of the labor, the patient should be allowed, or rather encouraged, to take her usual meals; as the pains increase, she will lose all inclination for eating, but it is of consequence that she should take something occasionally, if the labor be prolonged, in order to give the stomach something to do, otherwise, she will, probably, suffer from flatulence. It is especially the nurse's province, as I have already remarked, to see that attention be paid to the natural evacuations; that the bowels are freed during the early part of the labor, and that throughout, afterwards, the urine is discharged. Neglect of this latter precaution may lead to very unpleasant consequences.

When the child is born, and the placenta expelled, the nurse should remove the soiled linen from the patient, and apply warm napkins, so as to make her comfortable for the time, without exposure or exertion on her part; and having replaced the bedclothes, which were lightened during the heat of the second stage, the nurse is at liberty to turn her attention to the infant, of which I shall speak presently.

When the doctor leaves the house, the nurse's

first duty is to see that his directions are implicitly obeyed. Remembering all the patient has gone through, it is evident to common sense, that the quieter she is kept the better: not more than one or two persons should be allowed to enter the room, and no running in and out should be permitted. There should be very little conversation, and that neither in a loud tone, nor in whispers, for the latter tease the patient by exciting but not gratifying her curiosity, and the former will give a headache. The room should be shaded, but not kept too dark, the temperature should be carefully regulated, and sufficient ventilation secured.

It may be well to enumerate the requisites for the lying-in room:—1. A proper drinking-cup. 2. Water-proof sheet. 3. A small basin for placenta, clots, &c. 4. Binders. 5. Strong pins. 6. Cold cream. 7. Bed pan. 8. Enema pump. 9. Feeding-bottle for baby. 10. Calico dress for nurse.

CHAPTER V.

OF THE NEW-BORN INFANT.

WHEN the child has been separated from the mother, it is usually rolled in flannel, and placed at the foot of the bed, or on a sofa, away from cold or draughts, where it exercises its lungs by crying freely; nor is this injurious, for it is not by the first efforts, nor by gentle efforts, that respiration is fully established. Before laying it down, however, the nurse should gently and carefully wipe the eyelids, to remove any discharge which may prove irritating, and see that there is no bleeding from the cord.

As soon as the nurse is at liberty, her attention is required by the child, and the first procedure is washing. This should be done in warm water, with or without soap (it is not necessary), in a gentle and handy manner. It is not advisable to be so particular as to make the process very long, for the second washing will be far more effectual. The cheesy matter with which the child may be covered, and which is so difficult to remove by soap and

water, will readily wash off if it be first smeared with butter or sweet oil, but if not entirely removed by the first washing, it will be found dry and falling off in flakes or dust, the next time the child is undressed. It is a very common practice to apply whiskey or brandy to the infant's head, but this appears a very useless custom, and one which may lead to mischief, if a drop of the fluid should splash into the eye.

When the washing is finished, the child should be gently and thoroughly dried with warm, soft napkins, before the fire, and all its clothes having been warmed it should be dressed as speedily as possible, and made warm and comfortable. Do not forget before you put on the flannel binder, to make sure that there is no bleeding from the navel-string. A little soft rag, scorched if you like, should be folded around the remains of the funis and turned up upon the belly; over this the flannel binder is placed. All the articles of dress that come in contact with the skin should be soft, and all handling performed gently, as is obviously necessary, if you consider the extremely delicate state of a new-born infant. Strings should be substituted for pins, wherever it is possible, and all complicated contrivances avoided; it is desirable a baby should be dressed or undressed, as easily as possible. You must be very cautious with the few pins

which are deemed necessary, not to allow the points to come in contact with the child; and with the strings and bandages, that they be not too tight. You will be expected, no doubt, to give an opinion upon the important subject of caps, and will, naturally, ask me for mine. Doubtless, "much may be said on both sides," but I confess that I can see no advantage in dispensing with them, but a saving of expense. It is not more *natural* to have the head uncovered, than it would be to have the legs so; I am sure that the absence of caps never prevented "water in the head," and certainly the infant has one more chance of taking cold, to say nothing of their looking very ugly, without caps. However, I generally let my patients take their own way, as I know that they will do as they like, whatever I may think; this *only* I stipulate, that the head shall, at all events, be lightly covered with a shawl for a week.

Now, remember that, as regards dress, the infant requires softness, looseness, and warmth; and, as regards handling, gentleness and dexterity.

After washing and dressing, comes the question of physic and food. No doubt, if the mother have plenty of milk, it will act as a purgative, and render medicine unnecessary; perhaps, even without it, the child's bowels

might be moved spontaneously; nevertheless, as few women have milk the first day, and as the retention of the meconium is apt to gripe the child, and make it uneasy, it is generally advisable to give a small teaspoonful of castor oil: at any rate, if the bowels are not moved in the course of six hours. Sugar and water, or butter and sugar, are sometimes given to new-born infants, but if any purgative be required, castor oil is far better than such mixtures. If this produce no effect, you should examine and ascertain that the anus is not imperforate.

By far the best food for an infant, until its mother can supply its wants, or to make up for her shortcomings for a week or two, is equal parts of cow's milk and water sweetened; or three parts of ass's milk, and one part of water. But how often should an infant be fed? Whenever it is hungry, of course; but not necessarily whenever you think it hungry, because it cries. A new-born infant will, probably, require something about every two hours, and surprising as it may seem, it is quite possible, at this early period, to lay the foundation of orderly habits, and quite impossible to overrate their value. Give the baby its food every two hours, or thereabouts, unless it be asleep; either its natural food, or milk and water, with a spoon, or from a cup or feeding bottle; the latter is the best,

provided you wash it each time after using it, and remove and cleanse the teat on the nipple. Such feeding bottles as Gilbertson's or Mawe's are a great improvement on those formerly used. A little experience will show you the proper quantity to give each time; and, fortunately, any little excess is remedied by the stomach rejecting the surplus. When "possiting," as it is called, occurs, or if the stomach be unusually delicate, it is better to give the child less at a time, and rather oftener. If the mother have not milk enough, or if full nursing be too much for her strength, you must supply her deficiency by feeding; and I think it will be better to feed the baby at night, so that she may get a good sleep, and let her nurse it during the day; after a time, when she is quite strong, she may reverse this, and feed the child during the day, if she cannot nurse it altogether, as the most natural, and most convenient, and most comfortable sleeping place for the baby at night is in its mother's arms, at least for some time. As the child grows older, a change of food will be required, for the same food, if continued long, almost always disagrees with the child. During the first month, and I am only at present concerned with this period, the changes need be very few; but for infants somewhat older, I may mention,

as varieties, in addition to milk, barley water, prepared barley or groats, arrowroot, corn flour, sago flour, panada, rusks, and bread jelly. The latter is made by pouring boiling water on the crumb of bread and squeezing it out again four or five times, and then simmering it gently with a little water in a saucepan until it is thick enough to set, which it will do on cooling. A spoonful of this jelly, with water or milk, and sugar, makes a very nice food. Whatever food you give, take care that it is very thin. No doubt a child is "more satisfied" by thick food, just as you are after a heavy meal, but it is not the more healthy way of feeding for either.

Having said so much about food, let us retrace our steps a little. Very little physic will be necessary after the first dose; and the less the better. Until the dark green stools *(meconium)* have passed off, and the discharges become yellow, the child is apt to be griped and uneasy, but this will only last a day or two; the mother's milk will then be coming, and that, at first, acts as a gentle purgative, so that the bowels will generally be moved three or four times a day, which will be sufficient. You are not to think it your duty, however, to give the child medicine if it do not come up to this standard; nor are you to remedy too great frequency by a dose of castor oil: in such a case you should ask the

medical attendant for a prescription. Remember that to a young infant a purging is much more serious than a slight costiveness. In addition to castor oil, the only medicine of which a nurse should have command (unless ordered by the doctor) is essence of fennel, of which one or two drops may be given mixed with water, or with the food, if the child suffer from flatulence; and these medicines should be kept apart from all others. Avoid all medicine, and all tampering with stronger medicines than those I have mentioned, or you may incur a lifelong reproach. I knew a nurse who, either from carelessness, or a wish to relieve the child, gave it a small dose of laudanum, and it was with difficulty saved from death. No doubt, young infants suffer from flatulent pains, and make their sorrows heard, but you are not at once to conclude that they need physic; a little fennel water, a teaspoonful of very weak wine and water, warming the feet, a warm flannel to the stomach, or a warm bath, will almost always afford relief. When a child cries violently, without apparent reason, it is not a bad plan to see if the point of a pin be not the cause. And if simple means do not afford relief in a reasonable time, you ought to send for the medical attendant without delay; you may lose valuable time, and what will affect you sensibly, credit,

by trying to cure the case yourself, when it is beyond a nurse's skill. One great object I have in view in this book, is to point out whatever exceeds your province, and to make it clear to you when you ought to demand assistance, and I think this a case in point. By candidly acknowledging what is beyond your province and skill, you will be sure to gain more of the confidence and respect of those who employ you than by pretending to a degree of knowledge to which you have no just claims, and assuming a responsibility which may be disastrous to your patient and yourself.

Next, and nearly equal in importance to the infant's food, is its sleep. Without sleep an infant cannot thrive; and a nurse should make it a rule never to disturb an infant, not even to show it to the dearest friends. You can easily give it a habit of sleeping at this early age, and hunger will generally wake it: the more it sleeps the better. When convenient, after the first few days, the best place for it to sleep is the mother's bed, as it will be sure to be warm there; but if you lay it down in a cot or bassinette you should ascertain that its feet are warm, and that it is warmly covered, and secured against draughts. As it gets older, it will remain longer awake, of course, but you should, as far as possible, keep to regular times for sleep,

and the mid-day sleep should be continued until it is three or four years old.

Another matter of great importance to the infant is cleanliness. I do not mean that "rough and tumble" cleanliness which consists in putting on a clean frock over soiled petticoats, or a clean pinafore over a dirty frock; but that minute cleanliness of a child's person, and of its inner as well as its outer garments, which ought to be the aim of all good nurses. An infant should be washed most carefully, after being fed, every morning, and in a slighter degree in the evening, and its dress entirely changed each time. The water should be pleasantly warm, and soap will rarely be necessary; but if required the glycerine soap is the best. A soft fine sponge or flannel should be used, and the operation performed with gentleness and quickness. Take care that all the creases and folds of the skin are cleansed, and every part of the body which comes in contact with another part, as neglect here will surely lead to scalding and chafing, After this it must be thoroughly dried with a warm soft napkin, and all the creases well powdered. For this purpose fine starch or hair powder is generally used; they answer the purpose very well generally, but there is a much better powder, called "Lycopodium," or puff-ball powder, which may

be obtained from the chemists. If a part be dusted with this powder, water will pass over it without dissolving it, or washing it off, or wetting the skin. I have found this most useful with soft children, who are scalded, but especially when the buttocks or groins are affected.

Washing and dressing are distressing enough; and when all is finished, the child is generally ready for a sleep, in which it should always be indulged. A very careful watch should be kept upon the natural evacuations, so as not to allow them to remain in contact with the child longer than you can help: half the cases of chafing and scalding we meet arise from the nurse's neglect in this particular, although they are ingenious enough in finding out other causes. No napkin that has been wet should be used again before being washed, still less one that has been soiled by discharge from the bowels; and before applying them, you should see that they are thoroughly dry, and soft, and warm. After each movement of the bowels, the infant should be sponged, dried, and dusted, and the latter always after passing water. In these operations also, it is curious how early regular habits may be acquired. After a month or two, a baby will quite understand what it is "held out" for, and such habits promote health as well as cleanliness.

But suppose, in spite of all your care, a child should chafe, and become sore; you must bathe the parts very gently, with milk and water, and dry them carefully, two or three times a day, and dust them with the lycopodium powder; if they do not improve, you may try a lotion of the sugar of lead (10 grains to an ounce of water), or of the sulphate of zinc (white vitriol), four grains to an ounce of distilled water; applying either, after washing or drying the part. If you employ the sugar of lead lotion, remember that it is poisonous, and be careful where it is kept, and also that it is properly labelled for fear of mistakes. If, under this treatment, it do not heal in a few days, the family doctor ought to be consulted.

CHAPTER VI.

CONVALESCENCE AFTER DELIVERY.

LET us now return to the patient, whom we left settled after delivery, and allowed to sleep; and trace the progress of her recovery, and the symptoms which characterize her convalescence. I shall treat the subject under different heads, and describe the symptoms as they occur naturally, or as they deviate from their natural and healthy condition; and under each head I shall speak of your duties.

1. A very slight observation will show you that the condition of the patient is much changed after labor. She is much more exhausted than you would expect, from the exertion she has made; she is pale, wearied, and, as you say, "worn out;" yet, on the other hand, her senses are too acute, and she is painfully affected by light and noise, which she would not have minded previously. Her appetite is gone, and the various secretions are a good deal altered. This all arises from the shock to the nervous

system, and is independent of both the exertion and the amount of blood lost.

Nay, this shock is sometimes so severe, especially after an operation, as to protract the recovery for many weeks, or even, in rare cases, to prove fatal.

In ordinary cases no medical treatment is required on account of this state of things; but you must be careful to allow the patient to rest until she recover from it. Keep the room perfectly quiet, cool, and shaded; forbid visitors, and allow no whispering, and little talking, and every day will show an improvement.

Even more care, caution, and stillness will be necessary after operations, or when the shock is more severe than usual, and will have to be continued longer. You will also have to carry out the directions of the medical attendant as to medicine and diet, and this you must always do with scrupulous punctuality. When directions have once been given, you are not at liberty to deviate from them, either to gratify the patient or her friends, or in accordance with any notion of your own; but should any real necessity arise for departing from these directions, it should be reported to the doctor the first thing on his next visit.

2. The respiration and circulation remain somewhat hurried after delivery, but by degrees

this hurry subsides; and when this is the case, your only duty, in reference to it, will be to keep the patient cool, comfortable, and tranquil. Should either the breathing or circulation become very quick or labored, you must inform the medical attendant.

3. Immediately after the expulsion of the placenta, I have told you that the *uterus contracts*, and if all goes on well, this contraction continues permanent, but increased now and then by afterpains. It may be felt as a hard tumor in the lower part of the abdomen, about the size of an infant's head, and each day it diminishes, until at length, after six or eight days, it sinks into the pelvis, and cannot be felt.

The vagina has been, of course, very much stretched by the passage of the child, but it is so elastic that it speedily recovers its natural state. The inner edge of the perineum is often slightly torn in first labours; but if it be not more than this, you will hardly be able to discover it the next day, and it is of no consequence. There is often, especially in first cases, some swelling and inflammation of the vulva which will be relieved by fomenting or poulticing.

Every day, and more than once each day, for the first few days, you will make a point of ascertaining that the uterus is properly contracted; for as long as it is so, there is little fear

of flooding. But it may be larger than it ought to be from various causes; and if you find it so, especially if it be tender on pressure, you must mention it to the doctor, and ask directions from him.

A fresh binder should be applied every morning, and tightened so as to afford firm support without being painful: it becomes displaced very soon, however, and will require re-arrangement three or four times a day. You should always pay special attention to this matter, as it is a great vexation for a lady to find her figure spoiled when she is able to dress and go down stairs. The abdomen is so loose for some time, that, unless artificial pressure be made, it is almost sure to distend from flatulence, and once distended, you will find it almost impossible to remedy it until the next confinement.

The external parts should be carefully washed with warm water ten or twelve hours after confinement, and this should be repeated daily with every precaution against cold. A soiled sheet folded should be placed under the hips, and the patient be kept covered. If you discover more than the slight laceration I have mentioned, or if there be any unusual inflammation or soreness about the vulva, you should call the attention of the doctor to it on his next visit.

4. Connected with the condition of the womb

are the *afterpains* which result from its contractions. In their situation and character they exactly resemble labor pains, but they are much less severe generally. You rarely observe them after the first confinement, and as rarely are they absent after subsequent ones. They commence generally in the course of an hour or two after delivery, last for a minute or two, and then subside, to be renewed at intervals. During, or immediately after each, there is often a slight increase of the discharge, or some clots expelled, althought the pains are themselves a security against flooding. They continue for two or three days, increased for a time by suckling, but gradually becoming less frequent and less severe until they disappear.

This is the ordinary form of afterpains, and so far from regretting their occurrence, medical men consider them as beneficial when not too severe. In some instances, however, this is the case; they are as painful as labor pains, coming on very frequently, lasting some time, and depriving the patient of rest. Or, after apparently subsiding, they may recur on the third or fourth day, and at the same time you may observe the uterus larger than it ought to be; after a time you will generally find a clot expelled, and then the afterpains cease.

Little treatment is required if the afterpains

are natural and not excessive; a warm napkin, or a piece of flannel placed over the uterus, will afford temporary relief. In the more severe cases, you had better obtain a prescription from the medical attendant; or if you are acting alone as midwife, you may give a draught containing from twenty to twenty-five drops of laudanum. It is important to remember that unusually severe afterpains may run on into actual inflammation and endanger life. You may suspect this if rigors occur, if the patient become feverish, and the abdomen tender on pressure; and it will then be your duty to communicate to the doctor the condition of the patient.

5. The discharge of blood which occurs after delivery diminishes in quantity, but continues for some time: this is called "*the lochia*," or "lochial discharge," or "cleansings." At first, it is red like blood, but after a few days it gradually becomes paler, then yellowish or greenish, and is called by nurses the "green waters." Occasionally the blood coagulates in the vagina, and forms a large clot, which may require pains to expel it, or it may even render passing water difficult. When expelled, it occasions the patient some alarm and uneasiness; but this you may relieve, as it is of no consequence, and merely indicates that the discharge

has been more than usual. The quantity varies very much, and so does the duration of the discharge; sometimes it is very scanty, especially when the child dies before birth; and sometimes it ceases in a fortnight, especially when there is an abundant secretion of milk. It ought to be over in about a month at all events.

On the other hand, there may be too much at first; or it may come on more flush some days after delivery, on sitting up; after nursing, especially if the nipples be sore; or it may return after having changed its character; and in all these variations there may be nothing seriously astray. But it will only be right that you should acquaint the doctor with the occurrence, that he may decide whether any treatment be necessary.

It will be your special care that neither by cold nor exposure shall the discharge be checked. Napkins, well dried and warm, should be constantly applied, and changed often enough to prevent their becoming wet applications; and the binder should be kept tight so long as the discharge is excessive. Nor should the patient be allowed to sit up or make any exertion until the quantity has moderated and the color changed, or else it may so increase as to amount to flooding.

6. Owing partly to the quiet lying in bed,

and partly to the relaxed state of the abdomen, the bowels are seldom moved after delivery until medicine be given; and the patient will sometimes allow the urine to accumulate in the bladder. Occasionally, indeed, when the second stage of labor has been tedious and difficult, the patient is not able to pass water at all for some days subsequently.

Now it is very desirable that the urine should be passed at moderate intervals, and you should induce her to try and do so at latest six or eight hours after delivery. The application of a warm cloth to the vulva will facilitate this, and, applied afterwards, it will remove any smarting. If the patient turn on her face and knees, she will sometimes succeed in voiding urine, when she cannot do so in any other position. If after one or two moderate efforts (and you must never allow much forcing) she is unsuccessful, you must obtain assistance and have the water drawn off, if you cannot perform this operation yourself. As I think that every midwife and nurse ought to learn to do this, I may as well describe what I conceive to be the best mode. Place the patient on her back near the edge of the bed, and pass your left hand beneath the bed-clothes, and between the labia, until you feel the arch of the pubis. You know then that the orifice of the urethra

must be just above that, and if you pass an elastic catheter with the other hand along the inner side of the finger at the orifice of the vagina, it will almost certainly slip into the urethra. If not, move it about a little until it does, taking care not to press so as to give pain. After it is introduced, pass a small vessel between the thighs to receive the urine, and remember that during the whole of this proceeding in ordinary cases, no part of the patient's person is to be uncovered. Occasionally during labor, when the parts are swollen from pressure, or afterwards from inflammation, the operation cannot be performed without sight, and then you had better place the patient on her side and have a candle.

However desirable it may be that the bowels should be moved, I do not think it wise to effect this by medicine for twenty-four or thirty-six hours after delivery. This rest will allow the patient to recover a little, and the organs to return more or less to their natural state; nor have I ever known any mischief to arise from waiting so long. After this time, if they are not moved naturally, a dose of castor oil, Gregory's powder, or the common "black bottle" (senna, salts, and ginger), moderate in amount, may be given very early in the morning. As a general rule, I think that pills do

not act satisfactorily when the patient is confined to bed. If the first dose of medicine produce no effect, it may be repeated, or what is perhaps better, an enema of a pint of warm water, or thin gruel, with a tablespoonful of castor oil, or table-salt may be given. Every nurse should have an enema syringe or pump as well as an elastic catheter, and take them with her to every case she attends. In administering this, you will have to be very gentle: remember that all the parts are very tender: direct the point of the pipe back towards the spine, use very little force, and stop and change the direction if the patient complain of pain. Should she suffer from piles, you had better not try the enema. And when the medicine operates, or the patient passes water, do not let her sit up: she must use the bed pan, and, at the most, have her shoulders slightly raised. To prevent the patient receiving any cold impression from the pan, it should be warmed at the fire before using it, or what is better, should be cased in flannel.

As I have referred to piles, I may as well say a word or two about them. They are very common during pregnancy; and in some cases where they do not exist during pregnancy, they come on after delivery, and add much to the patient's sufferings. Sometimes they grow from

the orifice of the anus, and are called external piles; in other cases they form within the bowel, and are forced down when the bowels are moved, and remain outside; these are the most painful, as, when down, they are grasped by the anus (or orifice of the bowel) and strangulated. Now, when your patient complains of piles, it is your duty, by an examination, to ascertain whether they are external or internal; if the latter, they must be returned within the bowel, which you can do by oiling the points of your fingers, and pressing the piles gently, yet firmly, upwards, until they pass into the bowel; and this you must repeat whenever they come down. If they be external and very tender, you should foment them twice a day, and apply a nice soft poultice of linseed-meal afterwards: if this afford but little relief, two or three leeches may be applied to them. When the tenderness has diminished, a little ointment of galls, smeared over them two or three times a day, will generally reduce their size, and hasten their disappearance.

7. During the latter part of pregnancy, as you know, the breasts are enlarged, and even before labor often secrete a thin kind of milk; but you do not generally find true milk formed until after labor. About the end of the second or during the third day after delivery (some

times earlier), the breasts enlarge and become hard, and if not relieved, very painful, particularly in first confinements.

This change may be preceded by a rigor, or fit of shivering, and accompanied by a degree of fever, with quick pulse, hot skin, headache, and thirst: these symptoms need not alarm you if you are satisfied that they arise from the milk. Let me remark here, that the occurrence of a rigor in childbed is a circumstance that always demands particular attention, as it is often the first symptom of inflammation of the womb, or of some form of that most dangerous complaint, puerperal fever. If it be caused by the coming of the milk, it need occasion no alarm, but ascertain positively, and without delay, that this is really the cause of the rigor. You may come to this conclusion if you find that the breasts are becoming hard and tender, if the lochia continue in proper quantity, and if there be no pain or tenderness of the uterus. Whenever you are in doubt whether this shivering be dependent or not upon the state of the breasts, your safest plan is to call in the assistance of the accoucheur, for the loss of a very few hours in puerperal fever may place the woman beyond the power of medicine. Whenever your patient takes a shivering, therefore, no matter from what cause, attend to her *in-*

stantly, as it is most desirable to check it. Put a hot jar or hot blanket to her feet; lay an additional blanket over her shoulders, and give her a warm drink of whey, tea, milk and water, or oatmeal tea. To this drink, a few grains (8 or 10) of nitre, or half a teaspoonful of sweet spirits of nitre, or a dessert-spoonful of mindererus spirit may be added, if at hand.

The true remedy for the enlargement of the breast is, of course, the application of the child; but in some cases the increase is so rapid, that the child can make no impression, especially with first children, or if the nipples be defective; and the breasts go on increasing, until, by the excessive distension, inflammation is excited and an abscess of the breast may be the result. In other cases, when the infant is put too often to the breast before the milk is come, or where the skin of the nipples is very tender, it becomes irritated and inflamed, and either cracks or ulcerates, giving rise to great suffering and disappointment. Nay, more, unless you are very careful, and even sometimes, in spite of all your care, the inflammation may extend from the nipple into the gland of the breast, and an abscess form. I believe this, and cold from exposure, to be the two most frequent causes of this painful and troublesome affection.

How soon after delivery ought the child to be put to the breast? If the patient have had children before, and the breasts contain milk, I should say the sooner the better, after she is rested from the fatigue of labor, say in six or eight hours. If it be her first child, and the breasts be enlarged, I generally have the child applied once within twenty-four hours, and twice or thrice the next day, if it get any milk; but not more, lest the nipples should be irritated. But if the breasts are flaccid, you had better wait until the second or third day. If the draught be free, the child strong, and you are able to apply it early enough, and sufficiently frequently, you will almost certainly avoid milk fever, and the excessive and painful enlargement of the breasts; but the condition of the nipple may, possibly, interfere with the frequent application of the child. As the breasts increase, the child may make more ample use of them during the day time, until on the fourth or fifth day its entire nourishment is derived from the mother.

If, however, the breasts become hard and knotty and painful, in spite of the efforts of the child, you may afford great relief, and facilitate the flow of milk, by rubbing them gently with a little warm oil—rubbing them *gently*, I say, not as if you were polishing a mahogany table.

In performing this simple operation, the patient should lie on her back, and rather toward the side opposite to the breast that is to be rubbed, and you should make the friction with your hand around the base of the breast first, and gradually approach the nipple. Do not move your hand in a direction from the nipple towards the base of the gland, but just the reverse. A small bit of camphor dissolved in the oil is a pleasant addition.

In this state of the breasts, a "cere cloth" is often applied to them, and with much benefit. This is nothing more than a piece of soft old linen, the size of the breast, and having a hole cut in the centre for the nipple. On one side it is spread with olive oil and bees' wax melted together, and this side is applied to the breast. Although rather a dirty application, it is found to be productive of ease to the patient, and may be kept on for two or three days.

But I should wish here to point out to you a distinction too often forgotten. When the breasts are enlarged and knotty from over-distension, rubbing affords great relief; but if they are running on into inflammation, rubbing will make them worse, and destroy the only chance of an escape from an abscess. I have seen this mistake and its results over and over again. The chief distinction for your guidance is, that

in over-distension the hardness is equal over the whole breast, there is little or no tenderness, and the skin is pale; whereas in inflammation, one part of the breast is particularly tender, and there is a peculiar hardness there; the breast is very painful when touched, and there is a blush of redness on the skin of some portion of it. Under such circumstances, if there be a doctor in attendance she should at once report the matter to him and follow his directions. If the doctor have ceased his visits, he should be recalled, and until his arrival the soothing treatment, fomentations, poultices, &c., is the only one necessary.

As regards the nipples, I have already mentioned that the skin should be hardened during the latter months of pregnancy, by the application of spirits and water, after washing with soap and water, and drying. It is a good plan to sponge the nipples with cold water each time after suckling, and then to apply brandy and water. If you find the nipples becoming tender and raw, or cracked and painful, great relief may be obtained by the application of a small soft poultice, for a short time after suckling, and then for the use of a lotion of alum and water, or equal parts of tincture of catechu and water, or strong green tea. In some cases, it is advisable to apply a weak solution of lunar

caustic, but this you had better leave to the doctor.

If, notwithstanding the early and careful application of the child, and attention to the nipples, the breasts should inflame, either from cold, over-secretion, or extension of inflammation from the sore nipple, what are you to do? Not to rub them, but to foment and poultice them until you can get advice; but if you should not be able to obtain this, six or eight leeches may be applied, followed by constant poulticing until either the inflammation subsides, or suppuration takes place; supporting the breast by a sling, so that it cannot hang down; taking care at the same time to keep the bowels free. During this process, it is better to confine the patient to a simple, moderate diet; allowing broths if there be not much fever, but no wine until the abscess is evacuated; and remember that it is always better to have the abscess opened than to let it break; it will be more completely emptied, will heal sooner, and it may happen that by avoiding the neighbourhood of the nipple, the future use of the breast may be secured.

But suppose the infant to be dead, or the patient unable or determined not to suckle her child, what are you to do? You cannot prevent the secretion of milk, and I do not think that

the methods of checking the secretion, by cold applications, &c., are safe or advisable. But if you remember that the amount of milk secreted depends partly upon the food taken into the system, and partly upon the amount of milk drawn from the breasts, you will see that you have a safer, though slower, method of putting an end to it. Diminish the diet, especially the fluid portion of it, and take away a little milk occasionally, by a child or by a breast-pump, just enough to relieve the sense of distension, and you will soon find that less is secreted, and if you gradually diminish the amount you take away, in the course of a week or two, the patient will not require this assistance. And, at the same time, you may have recourse to gentle frictions, fomentations, and the cere cloth.

When the milk runs freely on the application of the child, scarcely any assistance or interference on your part will be necessary; but on the other hand, I have met with a few instances in which the milk all ran away, so that with an ample supply the child was nearly starved. In one case, both breasts kept continually leaking without cause; in other cases, when the rush or draught was excited in one breast, from the application of the child or any other cause, it not only was felt as usual in the other, but

the milk ran from it as freely as it was drawn from the one in use. This may be called "incontinence of milk," and seems to depend upon some local weakness. In such cases, I think that astringents applied to the nipple, and the use of nipple glasses, are of the greatest benefit.

At a more advanced period of nursing, when the mother is exposed to various external influences, you will find the milk liable to be affected both as to quantity and quality. Thus the exciting or depressing passions will equally affect the quantity of milk; but they may do more, they may change its quality, and so injure the child seriously. I know an instance of this in two ladies who, when nursing, where plunged in grief by the death of a third sister, and both lost their children shortly after. Great grief, therefore, is a strong argument for weaning a child, or for substituting feeding for nursing, for a time. But those emotions which merely check the secretion, are of less consequence; and in general, when they cease, the milk returns. I need hardly tell you, that the "milk powders," sometimes given to increase the milk, are a delusion, except so far as they act upon the imagination of the patient and relieve her fears.

I have now gone over the chief peculiarities

of childbed, their variations, and the management necessary: there remain still a few points of management, upon which it is desirable that I should say a few words.

1. You cannot be impressed too deeply with the necessity of cleanliness and tidiness, not only personal, but general, as regards the sick room. The patient should be carefully washed, her hair settled, and her night-dress and cap, after the second day, changed morning and evening, the napkins changed twice a day or oftener, and the parts carefully washed with warm water, and dried once a day. The bed-clothes should be straightened when tossed, the room dusted and made orderly every morning, all unnecessary matters removed, and everything kept in its proper place. Trifling as such things may seem, they exert a positive influence upon the patient, and may thus favor or hinder her convalescence.

2. The diet of the patient is of great importance, though I am not disposed to attribute to it as great an influence as some have done, nor have I seen as much mischief arise from deviations from the ordinary rules as from other causes; still it is evident that errors in diet, whether as to quantity or quality, ought to be sedulously avoided. In general, the patient should be kept on bland, sloppy diet for four

or five days; your best guide will be the state of the milk; when the secretion has been reduced to the ordinary quantity required by the child, or in other words, when the child is able to take all its mother has for it, the diet may safely be increased, if in other respects she is going on well. Whey, milk and water, barley water, or weak tea for ordinary drink; gruel, panada, sago, tapioca, or bread and milk for lunch and dinner; with tea, not too strong, in the evening, will afford sufficient variety; bread and butter, of course, she may have. When the first rush of milk has subsided, about the fourth or fifth day, chicken broth, with or without bread or toast, as she pleases, or beef tea may be allowed for dinner; then chicken panada, chicken roast or boiled, a chop, &c., with a glass of wine and water, until she gradually resumes her ordinary diet. I think wine agrees best with the patient for the first few days, but afterwards she may have malt liquor if she prefer it. It is very desirable that all these matters should be prepared very nicely, as the patient's appetite is delicate and fastidious; and in order that you may be able to do this, I will add to the end of this chapter some recipes for preparing different kinds of food and drink.

3. Of even greater importance than the diet,

is the keeping the patient in bed sufficiently long, and for some days in the supine position; almost all the more serious attacks of illness I have seen have resulted from sitting up or getting up too soon. The labor first, and then the lying in bed, render the system so sensitive, that a very slight exposure is sufficient to give cold. For three or four days the patient should absolutely be confined to the horizontal position, and not be allowed to sit up in bed. Cases of sudden death have repeatedly occurred from patients sitting up too soon after delivery. Then she may be propped up with pillows or a bed-chair during meals, and occasionally through the day, avoiding fatigue, and not even permitting this liberty if there have been flooding.

I turn a deaf ear to all requests to leave her bed, even to have it made, before the eighth day, and I have found the benefit of so doing. The bed can be shaken up very effectually, if the patient be placed near one edge, and then near the other while the bed is making. This prolonged rest allows the organs which have been so much disturbed, to return gradually to their natural condition, and by the eighth day the general sensibility is so much diminished that the patient is less susceptible of cold. On the eighth day, then, she may sit up for an

hour, not dressed, for that would fatigue her too much, but warmly wrapped up in petticoats, shawls, and dressing-gown. The next day she may sit up longer, and be more fully dressed, and afterwards she will gradually resume her usual habits in this respect.

Patients subject to prolapse or "bearing down" of the womb must be restricted to the horizontal position for a much longer period, say a month, or six weeks, by which time the restoration of the parts to their natural condition is generally completed, and in many cases the prolapse or bearing down does not return.

4. Another point of minor importance, but bearing upon the patient's comfort, is her occupation during the period of confinement after labor. Of course, for two or three days she is too weak to think about anything but her safety and her child, and too much occupied with these to need any other. But as she gets stronger, the day passes heavily, and the ordinary sick-room gossip is hardly sufficient to satisfy any but very ignorant or very common minds. If you are able to read nicely, as you ought to be, you may thus be a great comfort to her. A chapter of the Holy Book, to which all turn in sorrow and in suffering, read in the morning, after washing and dressing, will calm and compose her mind; and occasionally through

the day, a few pages of an interesting but not exciting work, will make the time pass very pleasantly. For some few days the patient ought not to read herself, but as she gets stronger, she will become uncomfortable if unoccupied, and provided the bed be placed sideways to the light, there can be no objection to her reading a little. When she sits up, she will, of course, be able to find employment that will not fatigue her.

Having thus treated pretty fully of the phenomena of child-bed, with certain deviations from the common course, and the necessary treatment of each, I trust you will find no difficulty in the ordinary management of lying-in women; but as you know that very dangerous attacks occur at this period, especially when puerperal fever is epidemic, which it is of the highest importance to have checked at the very commencement; and as some of the symptoms I have noticed have a strong resemblance to the beginnings of disease, it may be well to draw your attention to some circumstances which ought to excite your alarm, and induce you to call in assistance as soon as possible.

1. The occurrence of rigors, particularly on the second or third day, if the breasts are not full and hard, and especially if there be pain in the belly. I have already spoken of the urgency

of this symptom, and told you how to distinguish between shivering dependent upon the coming of the milk (milk fever), and that caused by inflammation. If you cannot fairly attribute it to the milk, you must not lose a moment in sending for the doctor; if you delay but a few hours, the patient may be past help. Meantime, however, you may apply a fomentation to the belly, but take care how you do it. Place a blanket folded lengthways under the patient, and next to her body; then wring out flannels in hot water and apply them, but not too wet; then fold the ends of the blanket over all, keeping the bed linen thoroughly dry, and repeat this in ten minutes. Not a drop of water should be allowed to fall on the bed or night-clothes, and when you finish the fomentation, dry the patient thoroughly, and place a warm, dry flannel all over the abdomen.

Or, instead of the fomentation, you may apply a poultice of scalded bran (in a flannel bag), or linseed meal; the latter should be made of just sufficient consistence not to run about, and applied as hot as the patient can bear it.

2. The occurrence of weakness or fainting, without special cause, or after having been raised in bed, is most alarming. In such a case, lay the patient quite flat in bed, and give a little wine, but summon the doctor instantly.

3. The same treatment will be necessary, in case of any oppression or unusual difficulty of breathing.

4. Severe pain in the uterus, extending down the thighs, even if it be only an exaggerated afterpain, demands relief; and as it may be more than this, viz., the commencement of inflammation, you had better obtain assistance, especially if it be preceded or accompanied by shivering.

5. The sudden stoppage of the lochia, especially if the milk be not abundant, or, on the other hand, an unusually profuse discharge, is too serious a matter to be neglected. Until you obtain assistance, you may in the former case, safely apply a poultice to the lower part of the abdomen; and in the latter, if the discharge amount to flooding, after tightening the binder, you may dip a napkin in cold water and apply it for a moment to the external parts. Do not make a slop about the patient, and do not let the wet napkin remain in contact with her, as it does no good after the first impression of cold.

6. An attack of vomiting or diarrhœa may occur without apparent cause, or as the consequence of repeated doses of medicine, and it is never to be overlooked. If it continue beyond a very short time, you had better call in a doctor.

7. If, after repeated and moderate attempts, aided by the means already recommended, your patient cannot pass water within ten or twelve hours, you should pass the catheter as directed at p. 78, or obtain professional assistance. Such cases rarely occur, except with first children, or where the second stage has been unusually prolonged; or when instruments have been used.

I shall now add a few recipes for articles of drink or diet, from Dr. Thompson's excellent work, *The Domestic Management of the Sick Room,* which I recommend strongly to your perusal, and some from other sources.

First, as to drinks.

1. *Toast Water.* Toast thoroughly, but not to a cinder, half a slice of a stale quartern loaf, put it into a jug, and pour over it a quart of water which has been boiled and cooled; and, after two hours, decant the water from the bread. A small piece of orange or lemon peel, put into the jug at the same time as the bread, is a great improvement to toast water.

2. *Apple Tea or Apple Water.* Slice two large, not over ripe apples, and pour over the slices a pint of boiling water. After an hour pour off the fluid, and, if necessary, sweeten with a moderate quantity of refined sugar.

3. *Simple Barley Water.* Take two ounces

and a half of pearl barley, and four pints and a half of soft water. First wash the barley with cold water, to remove from it all foreign matter; and then pour upon it half a pint of the water, and boil for fifteen minutes. Throw this water away, and having heated the four remaining pints of the fluid, pour them upon the barley, and boil down to two pints, and strain.

4. *Compound Barley Water.* Take two pints of simple barley water, two ounces and a half of figs, sliced; five drachms of liquorice root, sliced and bruised; two ounces and a half of raisins, and a pint of soft water. Boil down to two pints, and strain.

5. *Rennet Whey.* Infuse a moderate-sized piece of rennet in a sufficient quantity of boiling water to abstract all the soluble matter; separate the fluid and stir a tablespoonful of it, or the equivalent of rennet wine, into three pints of milk; cover up the mixture with a clean cloth, and place it before the fire until it forms a uniform curd. Divide this, and with a spoon, pressing it gently, separate the whey.

6. *Two-milk Whey.* Boil a pint of new milk; then pour it into another vessel, containing a teacupful of good buttermilk; pour the entire backwards and forwards, two or three times, and allow it to settle for a few minutes, when the curd will separate from the whey.

7. *Wine Whey.* Take two-thirds of a pint of good milk, and dilute it with as much water as will make up the pint. Take two glasses of sherry wine, or any other good white wine, a dessert-spoonful of muscovado sugar. Place the milk and water in a deep pan upon the fire, and watching the moment when it boils, which is known by a scum rising to the edge of the pan, pour into it the wine and the sugar, and stir assiduously, whilst it continues to boil, for twelve or fifteen minutes. Lastly, strain the whey through a sieve.

8. *Artificial Ass's Milk.* Take half an ounce of gelatine; dissolve it, by the aid of heat, in a quart of barley water; add one ounce of refined sugar; then pour into the mixture a pint of new milk, and beat up the whole with a whisk.

9. *Egg Milk.* Beat up an egg—white and yolk—thoroughly in a pint of new milk; add a pint of spring water, and put them on the fire in a saucepan until on the point of boiling, adding a pinch of salt or sugar, according as it is wanted for the mother or infant. There ought to be no flakes in it, but if there are, it must be strained.

10. *Groat Gruel.* Take three ounces of groats, wash them well in *cold* water, and having poured off the fluid, put them into four

pints of fresh water, and boil slowly until the water be reduced one-half, then strain the whole through a sieve, to separate the mucilage from the undissolved parts of the grits.

11. *Oatmeal Gruel.* Take two ounces of oatmeal, free from mustiness, and a pint and a half of *soft* water. Rub the meal in a basin, with the back of a spoon, in a moderate quantity of the water, pouring off the fluid after the grosser particles have subsided, but whilst the milkiness continues, and let the operation be repeated until no more milkiness is communicated to the gruel. Next, put the washings into a pan, after having stirred them well, in order to suspend any fecula which may have subsided; and boil until a soft thick mucilage is formed.

12. *Ground Rice Milk.* Take a tablespoonful of ground rice, a pint and a half of milk, and half an ounce of candied lemon peel. Rub the rice smooth with the milk, then add the lemon peel cut into small pieces; boil for half an hour, and strain whilst the milk is hot.

13. *Simple Bread Panada.* Put any quantity of grated stale bread into enough of water to form a moderately thick pulp, cover it up and leave it to soak for an hour, then beat it up with two tablespoonfuls of milk, and a similar portion of refined sugar, and boil the whole for ten minutes, stirring all the time.

14. *Chicken Tea.* Take a small chicken, free it from the skin, and from all the fat between the muscles, and having divided it lengthways into two halves, remove the whole of the lungs, the liver, and anything adhering to the back and sidebones. Then cut it, bones and muscles, by means of a strong sharp knife, into as thin slices as possible, and having put them into a pan with a sufficient quantity of salt, pour over them a quart of boiling water; cover the pan, and simmer with a slow fire for two hours; lastly, put the pan upon the hob for half an hour, and strain off the tea through a sieve.

15. *Chicken Broth.* Boil chicken tea down to one-half; add a little parsley or celery, and the yolk of an egg previously beat up, in two ounces of *soft* water. It may be rendered more palatable by the addition of some properly boiled rice or vermicelli or maccaroni, and by the addition of three or four grains of cayenne pepper to a pint of the broth.

16. *Chicken Panada.* Skin a chicken, and put it down to boil in as much water as will cover it. When sufficiently boiled, take up the chicken and cut from it all the white meat you can; replace the bones in the broth, and adding a *little* mace and salt, let them simmer for a quarter of an hour; then strain carefully, and allow the broth to become cold. Skim all the

greasy particles from the top of the broth; cut up the white meat of the chicken into a very fine mince; pour the broth over it, and heat both together on the fire till it becomes of the consistence of panada. Serve with dry toast.

17. *Beef Tea.* Take half a pound of good rump steak, cut it into thin slices, and spread them in a hollow dish, sprinkle a little salt on them, and pour upon the whole a pint of boiling water. Having done this, cover the dish with a plate, and place it near the fire for an hour; then throw the sliced beef and the water into a pan, cover it, and boil for fifteen minutes; after which, throw the whole contents of the pan upon a sieve, so as to separate the beef tea from the meat. This makes very strong beef tea; but it can be reduced by the addition of boiling water.

18. *Essence of Beef.* Take a pound and a half of beef, chopped small and freed from fat, cover it up in an earthenware jar, and fasten down the lid; put the jar in a saucepan of water, and let it simmer for an hour. On opening the jar, you will obtain about half a pint of the essence of the beef, with no admixture of water.

19. *Boiled Bread Pudding.* Grate half a pound of stale bread, pour on it a pint of hot milk, and leave the mixture to soak for an hour

in a covered basin; then beat it up with the yolks of two eggs. Put the whole into a covered basin, just large enough to hold it, which must be tied in a cloth, and placed in boiling water for half an hour. It may be eaten with salt or with sugar, and if wine be allowed, it may be flavoured with a glass of sherry.

20. *Simple Rice Pudding.* Wash two tablespoonfuls of good Carolina rice, and simmer them in a pint and a half of milk, until the rice is soft; then add the contents of two eggs, beaten up with half an ounce of sugar. Bake it for three-quarters of an hour in a slow oven.

21. *Batter Pudding.* Take a tablespoonful of wheaten flour, a pint of milk, the yolks of two eggs, and half an ounce of sugar. Beat the yolks of the eggs with the sugar, and mix them with the milk and flour. This pudding should be boiled in a basin, tied in a cloth, in boiling water.

22. *Rusk Pudding.* Make a pint of milk scalding hot, and pour it over two or three rusks, cover them close, and let them stand before the fire a few minutes; then add the yolks of two eggs, well beaten, an ounce of sugar, and a little nutmeg.

CHAPTER VII.

CLASS II.—UNNATURAL LABOR.

ORDER I.—TEDIOUS LABOR.

You will recollect that I stated that the first stage of labor commenced with the beginning of true labor pains, and ended with the passage of the head through the os uteri, of which the escape of the waters is generally, but not always, an indication. Now there are many causes which prolong this first stage, and all these I shall include under the head of tedious labor, and treat of it in the present chapter. By tedious labor, then, I mean a labor unduly prolonged in the first stage, and it is very remarkable that by this delay very little injury is done either to mother or child. No doubt by this delay, the mother will be very much fatigued, and the loss of sleep may be injurious, if she be nervous and delicate; but the special reason why we should endeavour to overcome the delay is that perhaps there may also occur delay

in the second stage, which is much more serious, and for which a long first stage will be a bad preparation.

Now let us see what are the causes of tedious labor, and their treatment.

1. *Feeble and inefficient action of the uterus.* In these cases you will find the pains weak and short, often seated in front, and not protruding the bag of the waters or dilating the os uteri. This may arise from some inherent want of power in the uterus, and perhaps this is the most frequent cause; but there are two other causes, over-distension of the uterus, which may arise from excess of liquor amnii, or twins, which interfere with uterine action; and *toughness of the membranes,* which prevents both the protrusion of the bag of the waters and their escape. The best remedy here is time and patience. Cheer and encourage the patient; let her remain up and walk about occasionally; see that she pass water at intervals, and that the bowels are free. Enemata are of double use here: not only do they free the bowels, but they stimulate the uterus and strengthen the pains. If the patient be inclined to sleep, by all means allow her, as the pains will come on all the better afterwards. But suppose these plans all fail, and labor continues long without making progress, there are other measures which may be adopted, and

some medicines, which may be given; probably the rupture of the membrane may be advisable, but this requires the knowledge and judgment of a medical man to direct; so that when you have tried the simpler plans, and they fail, you had better ask for assistance.

2. *Rigidity of the os uteri.* In some cases, the os uteri resists the dilating power of the "bag of the waters" for a very long time, even accompanied by really good pains. The immediate cause is the toughness, rigidity, or undilatability of the mouth of the womb itself, and this may depend partly upon the age of the patient, but you are not to conclude that the length of labor is in proportion to the age of the patient; and partly upon its being a first labor. Of course, too early rupture of the membranes will add much to any delay caused by rigidity. In most cases, you find, on examination, that the edge of the os uteri is thin and hard, and rather contracting than dilating during a pain. Before it yields, you may observe that it becomes much thicker and softer. In the majority of cases, I suppose that in time it would yield, but the patient would suffer very much unnecessarily, and might be so much exhausted as to interfere with her recovery. In some few cases of this kind, you find that the os uteri is extremely small; at first, perhaps,

you can hardly make it out at all. When you meet either of these cases, you will allow a fair trial to the natural powers, keep the patient out of bed, let her walk about, clean out the bowels by medicine or enemata, keep her cool and cheerful, give some of the light cool drinks I have mentioned; but if after a fair time you find that no progress is made, that the os uteri feels as rigid as ever, then call for further advice.

3. *Too early rupture of the membranes.* Sometimes the membranes are ruptured by clumsy examination; or you may mistake the cause of delay, and rupture them too early or unnecessarily; or they may give way of themselves; and the effect is the same, viz., a considerable delay in the dilatation of the os uteri, and the passage of the head through it. In some cases, the waters escape some days before labor sets in, and, curious enough, in these cases the dilatation and progress of the labor does not seem to be delayed; so that when you find this to be the case, you may cheer the patient with the assurance that it will not prolong her sufferings. Only in all such cases, ascertain at once what the presentation is, and lose no time if it be not natural.

In the cases under consideration, if the head present, little is required beyond patience and courage: the head will gradually dilate the os,

though slowly, and the first stage will be completed. If, however, the os uteri be rigid and undilatable, it will be even more obstinate, from the absence of the bag of the waters, and you must get help.

4. *Obliquity of the uterus.* In some women, who have had many children, the belly is so much relaxed that the uterus falls forward during pregnancy, and when labor comes on, the uterus does not quite resume its natural position, and the child is not fairly directed towards the brim of the pelvis. Should you find this to be the case, you may remedy it, in a great measure, by putting on a binder which will support the uterus in its proper position, and making the patient lie on her back during the first stage. In like manner, if the uterus lean to one side, you may correct it by placing her upon the other during this stage. As a general rule, none of these obliquities delay the labor very much, neither are they very frequent.

So much for the different causes of tedious labor. Let me remind you that you are yourself to exhibit patience and cheerfulness; that you are to encourage your patient by the fact there is no danger, but not by false promises; that you are to keep the room cool and fresh; that you may give cool drinks, and see that the

bladder, and bowels are properly evacuated. The diet may be much as usual: she had better take something occasionally, even if she have no appetite, as it will prevent flatulence, but she is better without wine. And lastly, remember that the means at your command for quickening the labor, though limited, require to be judiciously used, and if not efficacious, that you are not, on your own authority, to have recourse to more powerful ones, but to request the assistance of an accoucheur.

CHAPTER VIII.

CLASS II.—UNNATURAL LABOR.

ORDER II.—POWERLESS LABOR.

I HAVE said that delay in the first stage of labor inflicts little, if any, injury beyond fatigue and weariness, unless the second stage also be tedious, and this by no means follows as a necessary consequence. You may have a very long first stage, and a very short second stage, or the reverse. But delay in the second stage, from whatever cause, is very serious; and if it be carried to excess, it may be dangerous or fatal. When therefore the labor is prolonged, after the head has passed through the os uteri, you should promptly obtain assistance, for such is quite beyond the duty of a midwife to complete. In order to show you this I shall just mention the course of such a case, and the symptoms which arise when it is neglected.

The labor pains, which were good and strong, become irregular; and though they annoy the

patient they are really weak, that is, they do not press down the head, or they may even gradually cease. The bearing down ceases, and the patient cries out as in the first stage. Then she may have shivering and vomiting, at first of natural matters, then of green, bilious, or dark-looking fluid. The patient becomes restless, tossing, and throwing her arms about; the skin is hot and clammy or dry, the pulse quick, the tongue dry and brown, or loaded with white fur; the mind is disturbed and despondent; the vagina is hot and tender; the discharge is yellow or brownish and of an offensive smell; the belly tender, and the patient cannot make water. If no assistance be obtained, she gets worse and worse; all these symptoms are aggravated, and new ones added: the vomiting is more frequent, and of darker fluids; the restlessness is increased, the pulse is rapid and feeble, the skin cold and clammy, the tongue brown and dry, the patient lies in a kind of stupor, with low muttering delirium, and death soon closes the scene, having for its victims both mother and child.

It is true that we rarely see a case of this kind, involving such utter neglect; but I have described it, in order that knowing the consequences of delay, and the symptoms which arise, no such case may ever happen to you; it

will be your own fault if it do, as the early symptoms, such as the pains getting weaker, the pulse quicker, and the patient feeble and restless, with vomiting and tenderness of the abdomen and vagina, are quite sufficiently marked to show that assistance, beyond what you can render, is necessary. It is not easy to say at what time these symptoms may arise; it may be after six or eight hours, or not until after twenty; but I have no hesitation in saying that you ought never to allow the second stage to continue beyond four hours without advice, even if the pains are good, and no bad symptoms arise; nor would you be right in waiting so long if the pains get feeble and the patient feverish.

There are various causes which give rise to a protracted second stage, such as inefficient action of the uterus, mental emotion, tumors, or other diseases of the uterus; but the point which especially concerns you, is not so much the cause as the effect, viz., the second stage being unduly prolonged, and the labor making no progress, and lastly, the patient becoming feverish; and whenever you find this combination of circumstances, you may be sure that the cases threatens danger, and your responsibility will be very great if you neglect calling in assistance.

Meantime, you will carefully put in force all the instructions heretofore given for the management of labor; you will keep the room cool, and the patient cool; cool drinks may be given, and such cheering encouragement as is consistent with truth. Occasionally the patient may rise and walk about a while, which will not only refresh her and allow the bed to cool, but in many cases quicken and strengthen the pains. On the other hand, do not give hot and stimulating drinks, from the belief that they will assist the labor; do not heap too many bed-clothes upon her; do not allow too many persons in the room and about the bed; do not require her to press down unless the pains oblige her; and do not make too frequent examinations: these errors, if committed, would tend materially to produce the condition I have described as powerless labor.

When the second stage is thus prolonged, you will be very careful that the patient pass water at intervals, so long as she is able, and her becoming unable to do so, is an additional reason for not delaying to call in an accoucheur. In an earlier part of the labor, you will, of course, see that the bowels are freed, or you will take measures to free them.

As for the diet, if the patient can take a meal, she may have a cup of chicken broth.

arrowroot, sago, or gruel; if her appetite be gone, it will still be well for her to take a little food occasionally, to keep her stomach healthily occupied; but she will be the worse for any kind of stimulant. I have already given you receipts for several pleasant kinds of drink.

CHAPTER IX.

CLASS II.—UNNATURAL LABOR.

ORDER III.—OBSTRUCTED LABOR.

THE next deviation from natural labor of which I shall treat is obstructed labor; that is, labor obstructed or rendered difficult or impracticable from some obstruction in the soft parts; and as this always causes delay in the second stage, it gives rise in the end to the same dangerous symptoms as those I have mentioned in powerless labor. It is true that some of these obstructions seem to have more relation to the first stage, but if they prevent the first stage being completed, they do virtually delay the second stage, and the effects are the same. I shall enumerate shortly some of these cases.

1. *Minute or imperforate os uteri.* In some few cases, it has been impossible to detect any opening into the womb; in others, disease has evidently closed it up after conception, and in others the opening is so small as not to admit

the point of the finger. This would be of little consequence, if the progress of labor dilated the orifice, or opened it when closed, but in some cases this does not occur. The orifice remains closed, or it dilates so little, that it becomes clear that, long before it is completed, the patient will suffer the consequences of a prolonged second stage. Now if you find it difficult to discern the os uteri on making an examination, you must not hastily conclude, either that there is none or a very minute one, because it is sometimes pushed so far back as to be nearly out of reach; but you will wait a while, until the patient have had some pains, and then examine carefully again. If, after all your endeavours, you really cannot detect any, you had better obtain additional help; if you discern it, and it is very small, you may safely wait a few hours, to see the effect of continued pains upon it: if it yield, well; but if not, and the pains change their character into those of the second stage without effect, you had better propose that further advice should be obtained. If you are careful, you will be quite capable of ascertaining the existence of this obstacle, but the further management is too great a responsibility.

2. *Cancer of the uterus.* Pregnancy has been known to occur, notwithstanding the existence

of cancer in its earlier or later stages. I do not expect that you would be able to recognise this disease, nor is it necessary, for if you find the cervix unusually large, the os uteri well marked, and yet no dilatation produced by the pains, the case is clearly beyond you, and requires special assistance.

3. *Narrow and undilatable vagina.* In some women, the passage is unusually small and contracted, offering considerable hindrance to the passage of the child; but these cases are rare. The more common circumstances in which we find narrowing to such a degree is where inflammation has followed a former difficult labor, or operation, and, from want of due care afterwards, the vagina has ulcerated, and in healing has been diminished in size by hard growths, cicatrices or bands, &c. Thus you may find, on examination, that there are hard, gristly projections in some part; or there may be a narrowing like a ring, or in a corkscrew shape; or, lastly, that the vagina may be partially or entirely closed at some point, so that you cannot reach the os uteri.

You cannot easily overlook or mistake this condition, and as it is a very serious obstruction, the sooner you place the case in more experienced hands the better. The great danger of these cases is the probability of rupture of the uterus

or vagina: an accident, as you will learn by-and-by, almost always fatal to mother and child.

4. *Tumors in the pelvis.* Various tumors are occasionally found in the pelvis, sometimes in the vagina itself, sometimes behind the vagina, so that when you make an examination, you cannot but perceive that there is something unusual, and something which, as it obstructs your examination, will be pretty sure to obstruct the passage of the child, or perhaps prevent its entering the pelvis at all. The case is a very serious one, and one whose treatment requires nice judgment; and as nothing will be gained by waiting, the moment you discover anything of this kind, you should obtain assistance. Meantime, keep the patient quiet and cool, and do not encourage her to bear down.

5. *Imperforate hymen.* The fold of mucous membrane, called the hymen, when unbroken, may offer considerable resistance, and require surgical treatment. This is very uncommon, however, and you can have no difficulty in detecting it when it does occur. Should you find it to be the case, you may wait an hour or two, to see what the natural powers will effect; but if they do not remove the obstacle in that time, it will be better to obtain help and not prolong the labor.

6. *Rigidity of the perineum.* Though this may occasion considerable delay in the delivery, I believe it is never so great as to give rise to unfavorable symptoms, and seldom requires more than a good stock of patience. A sponge, wrung out in warm water, and applied to the part, or the free use of lard, serves sometimes to favor relaxation, and can do no harm. More than this you have no business to attempt; above all, beware of trying to dilate the parts, or to draw the perineum backwards over the head of the child, or you may give rise to a laceration which may compromise the patient's safety, or, at any rate, render her miserable for life.

I have thus enumerated for you the principal obstacles to labor dependent on, or seated in, the soft parts; I have not told you anything about the treatment necessary for each, because it requires experience which you cannot possess; but I have shown you how you may recognise these obstructions early, so as to place the case in other hands, before any mischief has been done by delay.

The ordinary management which is within your province is that I have laid down formerly, and which I need not here repeat.

CHAPTER X.

CLASS II.—UNNATURAL LABOR.

ORDER IV.—DEFORMED PELVIS.

In the group of cases I am now to bring under your notice, the hindrance to the progress of labor depends not upon any condition of the soft parts, nor upon the want of pains, but upon some narrowness or deformity in the bony structure of the pelvis; and it is the more serious, as we have no power of altering or removing it, but must adopt measures which may affect the safety of the child. This deformity may occur at the brim, or in the cavity, or at the outlet of the pelvis; it may consist in the pelvis being generally too small, in some parts being bent or twisted out of its natural shape and position, or in a hard tumor growing from some bone of the pelvis. And the amount of this distortion may vary very much; it may be so slight as only to delay the passage of the head; or it may render it impossible for it to pass

without assistance; or still greater, a living child may not be able to pass; or lastly, it may be impossible for the birth to take place through the natural passage, in which case the child must be removed by some other way.

Now, if the cause of delay be undiscerned, and the case be allowed to run on, the bad symptoms of powerless labor will be developed, one after another, until finally both mother and child will be lost.

From what I have said, you will perceive that these cases are beyond your skill altogether; they are in fact almost all cases requiring the use of instruments, and the only point which nearly concerns you is, how are you to detect their real nature, so as to demand assistance in time. Before labor it is not easy, even for a medical man, to discover the existence of distortion, if slight; and unless very well marked indeed, you could not be expected to do so; but if the woman be otherwise deformed, that is, if she have a crooked spine, or be rickety, you may safely conclude that the pelvis is below the full size. However, the case is altered when the patient is in labor, for then you have the head of the child to compare with the pelvis, and if you find, after some hours of pain, and when the os uteri is soft and dilatable, or fully open, that only a small portion of the

head is forced into the brim; or again if you find, notwithstanding strong pains, that the head is wedged or jammed in the pelvis, making no progress, and not permitting your finger to pass round it; or if, at the lower outlet, you feel the head obstructed by the lateral or sitting bones (*tubera ischii*), or by the coccyx posteriorly; you will have very good ground to suspect that the pelvis is too narrow in some part, or on the whole. It is true, that this impression may equally be produced when the child's head is enlarged from disease, and the pelvis is of the natural size; but as the same remedies will be equally necessary, the mistake will be of no consequence. When the head is thus wedged into the pelvis, it is usually called "locked head" or "impacted head" and such a case is commonly termed one of "impaction."

This seems to be the proper place to give you some instruction as to your duties, in case of operations. Always take care to have plenty of warm water, and sufficient light, if it should be necessary, Then you will receive orders from the accoucheur, and see that you have at hand all that he requires. Let your manner be calm and cheerful, free from hurry and fuss, and you will encourage the patient. She will draw her own conclusions from your manner, and the expression of your face. Under no

circumstances ought you to give way to tears or exclamations, but by words and looks you will try to keep the patient firm and composed. Above all things, try to keep her steady in the position in which the doctor has placed her; and if she holds your hand, do not let her pull so much as to draw herself into the bed. And when the operation is completed, let there be no excitement either of manner or language; remember that the patient is in a very critical position, which may be converted into one of imminent danger by the least imprudence; so act cautiously and wisely.

I have already spoken minutely of the care necessary after labor; well, after an operation double care will be required. A shaded room, coolness, ventilation, quietness, and sleep, are essential; nor are you to relax in the least in your vigilance, nor allow the patient any indulgence, for a longer period than usual. No visitors, no talking, are to be allowed. If the baby be alive, it need not be put to the breast until the milk is pretty well secreted, and not then unless the patient is, in other respects, going on well. Low diet must be continued until the doctor orders it to be improved, and he should decide as to purgative medicines. You may be prepared for more difficulty, and, perhaps, some pain in passing water, and had

better mention it if it be at all remarkable; after some operations it is not unusual for the patient to require the removal of the urine. Be very particular in washing the external parts; a certain amount of inflammation you must expect, which will be soothed and relieved by the bathing. But if it exceed this moderate amount, you must call the attention of the medical attendant. In some cases, which otherwise go on well, this inflammation runs on into sloughing or ulceration, not always very painful, and consequently overlooked, and in healing, the cicatrices to which I alluded in the last chapter are formed. Now you can do much to prevent this by watching the condition of the vagina carefully, and occasionally introducing your index finger, and moving it freely about, so as to prevent the sides from adhering or growing together. If after the discharge has become pale at the end of some weeks, you find it irritating and resembling matter, you may afford great relief by syringing the passage with warm milk and water, or weak camomile tea, once or twice a day; but in no case where there is much inflammation, or the appearance of ulceration, attempt to manage the case yourself. Upon the judicious treatment of such cases, the patient's future comfort, and perhaps her safety, may depend.

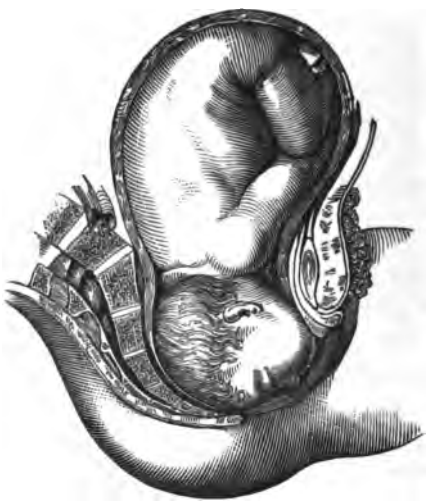
CHAPTER XI.

CLASS II.—UNNATURAL LABOR.

ORDER V.—MALPOSITIONS AND MALPRESENTATIONS OF THE CHILD.

1. *Face presentations.* In these cases, the face of the child is placed across the brim of the pelvis, the chin being towards one side, and the forehead towards the other: as the head descends, the chin almost always turns under the arch of the pubis, and comes out in front. At first, you will, probably, be a good deal puzzled, on making an examination, to say what presents. From the bulk which fills the pelvis, you may be pretty sure it is either the head, the face, or the breech. Now the head is known by being smooth, round, and hard, and having sutures; whilst the face is softer, uneven, and less round; you can feel the depressions of the eyes, the prominence of the nose, and the orifice of the

mouth, with a little care; but you must not suppose that it is as easy to do this within the pelvis as out of it. So far, however, you may easily distinguish it from the head; but you will feel more doubt about the breech, for, when the



parts are swollen from pressure, they are not so unlike as you would expect. But the buttocks, or one of them, are rounder than any part of the face, and if it be a male child, the genital organs will present, and the discharge of the meconium, which only occurs in breech cases, is conclusive. On the other hand, if you make

out the nose and mouth, with the gums and tongue, these, with the absence of the signs of the breech, will enable you to decide that it is a face presentation.

If you are satisfied as to the presentation—and in making an examination you must be exceedingly careful, or you may injure the eye—you will not need assistance, as these cases are almost invariably terminated favorably by the natural powers alone; formerly it was deemed necessary to deliver by art; now we know that this is unnecessary.

You will, therefore, wait patiently, for the case will be more tedious than ordinary labor, until the perineum commences to distend, and then you will support it carefully in the way I have described, but very watchfully, inasmuch as there will be rather more stretching and chance of laceration than usual, in consequence of the head passing with its longest diameter over the perineum, and requiring the largest amount of room for its accommodation. When the head is expelled, you will complete the delivery in the manner I have already described, and when completed, you may turn your attention to the child, which you will find a frightful object; for the pressure of the os uteri over one cheek always makes it swell, and it becomes of a purple red color; and in this the lips, eyelids, and oftentimes

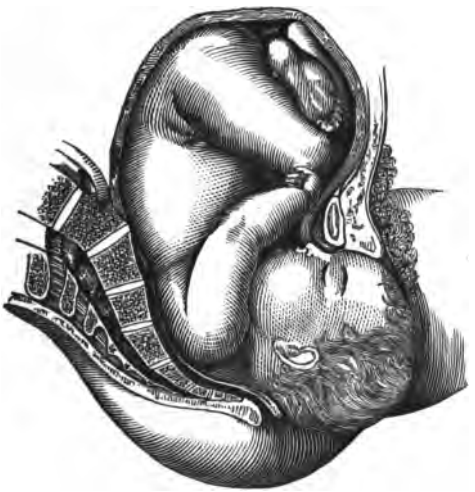
the eyes participate, whilst the other portions of the face are less swollen, though somewhat distorted. If no damage have been done to the eye, all the rest is of no consequence; foment the face nicely with milk and water, then apply cold cream, and in a few hours the swelling will have subsided, leaving a reddish mark or a black eye, which also will disappear in a few days. It does not appear that there is more danger to mother or child with a face presentation, than in ordinary labor. It will be perhaps, as well to mention here, that Denman makes face cases, as well as face to the pubis, and hand and head cases, varieties of natural labor, whilst breech, foot, and arm cases constitute his third class of preternatural labors.

It occasionally happens in some of the less frequent *positions* of the head, and in a few cases of "face presentations," that at the lower outlet the forehead of the child is turned towards the symphysis pubis.

You may recognise this by the smooth feel of the forehead, and its not filling the arch of the pubis, and also by feeling the back part of the head filling the pelvis.

In most cases, patience is the only thing necessary; a little more time, and a little stronger pains will expel the head. But you

must not wait too long. After three or four hours, if the head do not descend, you had



better ask for assistance. There is no danger either for mother or child.

2. *Breech presentation.* When the buttock comes first, the labor, for a time, goes on as usual, and it is only on the "breaking of the waters" that anything unusual is discerned. Indeed, I may state plainly, as I would wish to impress it upon you, that in any one case of labor, so long as the membranes are unbroken, no injury can happen to mother or child, except from hæmorrhage or convulsions.

In all cases of breech presentation, the belly of the child is turned either towards the back of the mother or her front, and so the buttocks descend into the pelvis, and then turning a little, their transverse diameter is brought to correspond to the long (or antero-posterior) diameter of the lower outlet. You will find that the buttock, which is in front, passes first through the orifice into the world, then you perceive the parts of generation, then the other buttock; after which, the body of the child is

expelled, and the arms and head follow, with very little assistance.

But how are you to know that it is a breech presentation? At an early stage, you may mistake it for the head; but, after it is fairly in the pelvis, you may feel a second round tumor, with a cleft or division between them; and, moreover, the presentation is much softer than the head, there is no suture to be felt, and most probably you will find meconium on the end of your finger, which will be decisive against its being either a head or face. The latter is altogether more uneven and irregular, and you can recognise the nose and mouth.

This presentation, if well managed, is not more dangerous to the mother than an ordinary one, but much more so to the child; more than one-fourth of the number of children presenting with the breech being lost. The danger is less if the woman have previously had a child, as the passages are more dilatable. The danger consists in pressure upon the funis, whilst the upper part of the body and the head are passing through the pelvis; if there be any delay, the child will be lost.

Of course, if you can obtain assistance, the chances of safety to the child will be increased; but, as you may not always be able to do so, I shall describe what will be necessary. During the first stage, you will treat the case as you would one of natural labor, and during greater

part of the second stage also, except that you had better tell the husband or friends the nature of the case, as soon as you know it yourself, so as to escape blame if the child be lost; it is better not to tell the patient.

When the buttocks distend the perineum, you must support it until they are fairly expelled. Now, remember that the slower the process of expulsion is at this period, the better for the child; do not therefore be tempted to assist and draw it out. It is in little or no danger until the legs and feet have cleared the vulva, and not till then need you interfere; but as there is pressure then upon the cord, and as the arms, which are stretched upwards, are an obstacle to the completion of labor, they must be brought down. Before doing this, draw the navel-string gently down, so as to take it off the stretch, and feel if the pulsation in it be strong and distinct; if so, you need be in no violent hurry, as you know thereby that the child is not yet in danger; but if the pulsation be feeble you must then hasten the delivery. In bringing down the arms there is danger of breaking them, so be very careful how you proceed. Pass one or two fingers over the back of the child's shoulder, until you reach the arm, as near the elbow as possible, then press the arm across the face and chest of the child—do not

pull it straight down—until it has descended into the pelvis to the external orifice, out of which it will fall. Do exactly the same with the other arm, which will be much easier: you may begin with either; the one most within reach is the best, and this is generally the one next the pubis, but in bringing down the other take care that you don't tear the perineum. When the arms are out, the head will turn so as to bring the face into the hollow of the sacrum, if you do not prevent it; take care therefore, and leave it at liberty to do so.

When this is done, and it won't occupy a moment, find out the child's mouth, place your left forefinger in it, and press the chin gently towards the neck, at the same time that with the right hand you draw the body of the child downwards and well forwards towards the thighs of the mother during a pain. You are not to use too much force, or else you will rupture the perineum, or break the child's neck; but if the pains are quick and strong, a very little assistance from you will cause the head to be born in time to save the child's life. If it do not, and if the perineum be rigid it will not; you must be contented with having done your best, and thankful if you have not injured the mother. The rest of the treatment is the same as for natural labor.

Let me again caution you: first, not to hasten the expulsion of the child's body; second, not to tear the perineum, whilst trying to bring down the arms; third, not to pull the arms straight down, but across the face and chest, and not to use too much force; fourth, when the arms are out, not to use too much force in extracting the head; fifth, be sure and draw the body of the child well forward, and not straight down; and sixth, take special care of the perineum. Remember also to keep the hips of the patient rather over the side of the bed during delivery.

If the child cry when it is born, it is all right; but if not, lay it on the bed, and feel if the cord pulsate, for if so, it will be almost sure to come round. Don't cut the cord for a while, but laying it where it will not be pressed on or overstretched, rub the chest and body of the child with some spirits: remove any mucus from the mouth, and then blow into it two or three times. If it make any efforts to breathe, however feeble, you may apply some hartshorn to the nostrils. If, however, you fail, and the pulsation in the cord get weaker, you may tie it and divide it, and then place the child in a warm bath for a few minutes, rubbing it over with the hand. When you take it out of the bath, rub it all over with warm flannel again, and continue trying these means until it cry, or as long as the heart beats.

If, when the child is born, it is black in the face, and the cord pulsates feebly, it is good to divide the cord, and allow a tablespoonful or so of blood to escape, and then tie it. You will often thus restore the child's color, and enable it to cry by this means. But if, when born, there is no pulsation in the cord, and no beating in the heart, your cares are useless—the child is dead.

3. *Foot presentations.* There is very little practical difference between a breech and foot

presentation, except during the first stage, for when the legs are expelled, and the buttocks are at the vulva, it becomes, and is completed, as a breech case. It is more dangerous to the child, however, for more than one-third of these children are lost. Whilst the child is in the womb, it occupies a sitting posture, but, instead of the legs being turned up in front of its body, the knees or the legs are bent up, and the feet or knees are at the os uteri, through which one or both is driven very soon. This explains why

the membranes often break very early in these cases, and it is one reason why you should always make an immediate examination when the waters escape, in order that, if the presentation be unusual, you may take precautions early.

In these cases of foot presentation you will at once discern that neither the head nor breech presents, but one or two extremities; but whether hands or feet, is the question; and a very

important question too, for their management is quite different. The characteristic marks of a foot are its length, its termination in the pointed heel, and the ends of the toes being nearly on the same level, and all close together:

very unlike the broader hand, with the uneven fingers, and the thumb separated from them. The distinction seems very clear, but take great care, or you may make a mistake.

One caution is equally true in both: don't draw down the presenting part: as in breech, so in foot cases, it is an object that the first part of labor should not be hurried: let nature take her course, until the breech and body pass out, after which the management is precisely that I have directed in breech cases.

4. *Arm presentations.* Hitherto, the mal-presentations, as they are called, that is, presen-

tations of some other part than the head, though increasingly perilous for the child, involve no increase of danger to the mother, and the labor, though perhaps a little more tedious, will be generally terminated by the natural powers, with the trifling assistance I have mentioned. But now we come to consider a malpresentation which involves most serious danger to mother and child, inasmuch as (with very rare exceptions) it cannot be terminated naturally, but always requires an operation, viz., turning. This, I need not say, is out of your province; but for the reason that the earlier the operation, the more easily and safely it is performed, it is most desirable that you should be able to recognise the presentation as soon as you are called. As in foot cases, the membranes are very apt to give way early, but, if you examine before this occurs, you will first be struck by the absence of the bulk of the head, and then, upon carefully examining through the membranes (taking great care you don't break them), you may ascertain that an extremity presents, but without being able to say whether foot or hand. In such a case, your safest way would, doubtless, be to send for an accoucheur to decide; but if you wait till the waters break, you must not leave the bedside for a moment until the question is decided. If the waters have come

away before your arrival, you must instantly make an examination, and ascertain whether it is the arm and hand, or leg and foot. I have just spoken of the difference, and you will remember that the hand is distinguished from the foot by its shortness and rounded shape, the unequal length of the fingers the separation of the thumb, and the absence of the heel. If you are able to reach the elbow, you will find it more pointed than the knee.

Now, when you have made it out to be an arm presentation, your course is very simple, but it requires promptitude and good sense. Send off instantly for an accoucheur, and, by the way, if you can write, you may save some trouble and loss of time when you send for one, by just writing down the nature of the case in which his assistance is required. Send then for the accoucheur, and keep your patient in bed, and very quiet; don't let her make the least effort to bear down, but rather encourage her crying out during a pain. Have plenty of warm water ready, some oil or lard, and an abundance of napkins, with the usual appliances of binder pads, pins, strings, &c. During and after the operation, you will receive and implicitly obey the directions given to you, and the hints I have thrown out, when speaking of your duty after operations.

CHAPTER XII.

CLASS II.—UNNATURAL LABOR.

ORDER VI.—TWINS. TRIPLETS. MONSTERS.

SOME nursetenders pretend to be very wise in the matter of predicting twins, triplets, &c.; but as I do not know any signs by which you can be *sure* of either, I would recommend you not to risk your reputation by guessing. These cases of plurality of children, whether twins or triplets, are placed by Denman in his fourth class of "complex labor."

Twin labors are generally slow, without apparent cause, and, probably, the first reason you will have for believing that there is more than one child, is from finding the uterus nearly as large as ever when you place your hand upon it, after the birth of the first child. As you should do this in all cases, you will not be long in doubt; and when you find it to be the case, you may place the binder lightly round the

patient, but you had better not pull the navel-string, but wait for the next pain, and then make a careful examination. Both children may present naturally or unnaturally, or one may present naturally and the other unnaturally; and your conduct will be altogether guided by this circumstance. If after delivering the first child naturally, the head of the second present, and the pains return, you will deliver the second child just as you did the first; but if the pains do not return within the hour, you may break the membranes, and if this be not followed by the prospect of speedy delivery you had better get further advice. If the breech or feet of the second present, probably your wisest plan will be to ask further help; but if not the child must be delivered as I have described, when speaking of breech presentations. It will be more easily born, and incur less risk, in consequence of the parts having been dilated by the first child. If the arm present, or if the labor do not recommence in an hour, the advice and assistance of an experienced accoucheur will be necessary.

With regard to the afterbirths, you must be on your guard, as flooding is much more likely to occur than with single children. On no account, interfere with the placenta of the first child, till both children are born. After the

birth of the children, the management of the third stage will be conducted according to the general rules already laid down. You will have very firm and continuous pressure made over the womb, and when it contracts, you may either take hold of both cords, or first of one and then of the other, as the two afterbirths may either be expelled together, and apparently joined together, or separately. In the former case, you will know that both have come away, if you find the two cords inserted into it: if you have only one cord, you have only one afterbirth. Do not use force with the cords, for you may break one, and, what is worse, you may hurry the placenta away and occasion flooding. After the expulsion of the placentæ, place compresses above and upon the uterus, and pin the binder tightly. Should there be hæmorrhage before or after the placentæ come away, send instantly for assistance, making firm pressure upon the uterus meantime.

The same rules apply when there are more children than two; the chances of a malpresentation are, of course, increased, and there is very much greater danger of flooding; and you will remember that, after such a delivery, a small loss of blood will produce much more alarming effects than under ordinary circumstances. For some time after labor, you must bind the

patient well with pads, and keep a close watch upon the discharge.

Monsters. There are only two questions which concern you, as regards monsters. First, whether the child present right, and is not too large to pass: if so, you must treat it as a case of natural labor; if not, you must obtain assistance, whether for malpresentation or excessive bulk. Secondly, let the monster be as frightful as you please, you are not to kill it, as this is murder and legally punishable; but more, it is your duty to do all you can to prolong its life, though you will generally fail.

There is another species of monstrosity more common, and which is the result of disease. I mean the child's head enormously enlarged by water. I do not think you will be likely to detect this on examination: it requires great experience: but after labor has lasted some time you will discover that the head is too large to enter or pass through the pelvis; and whenever you find this out, it is your duty at once to place the case in other and more skilful hands.

CHAPTER XIII.

CLASS III.—COMPLEX LABOR.

We now come to the third class of labors, termed complex or anomalous, in which the labor process is complicated by one or other of the following accidents, viz., prolapse of the funis, retention of the placenta, flooding, &c.; and you will remember that this is the fourth class of Denman, as he makes a separate class of all those cases in which the child presents with any other part but the head. We shall first treat of

ORDER I.—PROLAPSE OF THE FUNIS.

It sometimes happens that the navel-string, when it is unusually long, lies below the child, near the os uteri, and when the membranes break, it slips down, or is washed down by the water. This improper situation of the cord is

favored by a foot or a knee or an arm presentation, because these parts are not sufficiently bulky to fill the brim of the pelvis. Lastly, I have seen the waters discharged with such force, that their rush brought down a loop of the cord which did not previously lie below the head. This is a most dangerous accident for the child, because the cord is at once subjected to pressure which, unless removed within a very short time, will inevitably destroy the child. More than half of such children are lost. It is clear, then, that instant delivery affords the only chance, and for this you must send as quickly as possible for an accoucheur, *provided* the cord pulsate. You will have no difficulty in recognising the loop of the funis at the os uteri, and your chief object must then be, by placing your finger within the loop, to feel whether it pulsate or not. If it do not, you will know that the child is dead, and you may act according to the nature of the labor: if natural wait and deliver; if unnatural or otherwise complicated, act according to the rules I have laid down.

CHAPTER XIV.

CLASS III.—COMPLEX LABOR.

ORDER II.—RETENTION OF THE PLACENTA.

If you carefully adopt the method I have laid down, of not hurrying the expulsion of the child, of making steady pressure upon the uterus after the head is born, and continuing it after applying the binder, you will rarely have the placenta detained beyond half an hour; but if this be neglected, and in some cases, notwithstanding every precaution, it may not come away for hours: such are cases of "retained placenta." It is not easy, or perhaps wise, to fix upon a definite time when we must have recourse to interference; but, as a general rule, I think you may consider it necessary to do something if the placenta do not come away in an hour and a half or two hours. What is to be done will depend upon the doctor to determine. The occurrence of great discharge after the birth of the child will alone put a stop to all

notion of waiting, and you will then summon assistance immediately.

But if no hæmorrhage occur, and if you find that, although the uterus is pretty well contracted, yet the insertion of the cord into the placenta is not within reach, you may infer that the placenta is so far held firm by the uterus, and if, after repeating this examination, at intervals, for the time mentioned, it is still not within reach, the case may fairly be considered one of retained placenta, and assistance requested. Now pray take care not to use too much force in putting the cord on the stretch, or you may invert the uterus, *i.e.*, turn it inside out, or break the cord, or cause hæmorrhage, or irregular contraction of the uterus.

After manual delivery of the placenta, the woman is very liable to attacks of inflammation of the womb, and will require much care and watchfulness. The slightest rigor, or pain, or tenderness of the belly, should meet with attention, especially if the milk do not come, or the lochia are suppressed.

CHAPTER XV.

CLASS III.—COMPLEX LABOR.

ORDER III.—FLOODING.

THERE is no accident in the whole range of midwifery practice which is so alarming, and none which will so try your steadiness and self-possession as flooding, whether before or after delivery. It is evident that the mother, or both mother and child, are in imminent danger; and if you do not act promptly, or if you take too much upon yourself, you will incur a fearful responsibility. Fortunately your duty is simple enough, and that is, to transfer the case to the accoucheur; but it may be as well that you should understand the nature of the attack, and some simple methods of treatment which you may practise until he arrive. I shall, therefore, say a few words on flooding *before* and *after* delivery.

1. *Hæmorrhage before Delivery*, when occurring within the first six months of gestation, is generally a symptom which threatens abortion

or miscarriage, and always demands immediate attention, especially if it be accompanied by pain. If there be no pain, and but a small discharge, it may be possible to prevent it going further, and you ought to advise the lady to call in an accoucheur immediately. If the discharge be considerable, it will probably destroy the life of the child, and then its expulsion will follow, as is best. In all such cases it is within the range of your duties to keep the patient quiet in bed, and cool, to give cool drinks, and to apply a napkin dipped in cold water for a moment occasionally to the vulva. All beyond this is the province of the accoucheur.

Hæmorrhage occurring in the last three months has been divided into *accidental* and *unavoidable*. In each of these cases the flooding arises from the separation of the placenta or a portion of it from the uterus. In the former this separation is an accidental occurrence, and may arise from falls, blows, fright, &c., but the placenta occupies its natural position in the womb. If you are called to such a case, you will find more or less discharge, with or without labor pains, and you can generally trace out the cause. If there be pains, *the discharge ceases during a pain*, and on examination you can feel the membranes at the os uteri.

There is a more obscure form of this accident, and that is, when the blood is poured out between the placenta and membranes, and the uterus, but does not escape externally for a time, but which is chiefly indicated by the same pallor and faintness which results when the blood escapes externally.

Unavoidable hæmorrhage, on the other hand, occurs in consequence of the placenta being placed partly or wholly over the os uteri; and as the dilatation of the os uteri necessarily separates the afterbirth from the uterus, hæmorrhage is unavoidable. Now you will find that this form of flooding occurs without any external cause, and that it generally happens for the first time about the seventh month, and at intervals afterwards until the patient is delivered. Again, unlike the former variety, the *flooding increases during a pain.* A vaginal examination, to one familiar with such cases, will detect the placenta, or a part of it, over the os uteri in this case, whereas only the membranes are to be felt in the other.

The *immediate* danger is to be measured by the amount of the flooding; but, looking to the future, there is a great difference between the two varieties. In accidental hæmorrhage, if the discharge be arrested before there is much exhaustion, the patient may have no return, and

may even go to her full time; but in unavoidable hæmorrhage, even though you do stop the first attack, you may be quite sure that it will return, and most likely that artificial delivery must be performed before pregnancy is completed. The danger to the child is great, in proportion to the loss; and as the hæmorrhage may be large as well as repeated, the child is rarely saved.

I need say nothing to you about the medical treatment, as such cases imperatively demand the highest skill; but until that can be obtained, you will keep the patient in bed, lightly covered, the room quite cool, and you will give all drinks cold. There will be no harm in your dipping a napkin in cold water, and applying it for a moment to the external parts, but do not make a slop about her person, and be sure to keep her feet warm.

She must be prevented making any exertion, and should be guarded from all mental excitement as far as possible. A little beef-tea, or chicken broth, may be given from time to time, or wine if she be faint.

When the doctor has seen the patient, you will be careful to obtain from him minute instructions, and not to deviate from them a hair's breadth. Incessant watchfulness and attention are demanded, for both doctor and nurse have a great weight of responsibility. Any change,

any recurrence, should be instantly communicated: you cannot wait a moment to see if the patient will get better.

And after delivery, the patient is in such a weak state, that the utmost care will be necessary in the administration of food, the admission of visitors, the preservation of quietness, and the general regulation of the sick room, &c., which mark the good nurse.

2. *Hæmorrhage after Delivery* may occur either before or after the placenta is expelled. After attending a few cases, you will know what is the ordinary amount of discharge; and any cases in which this is much exceeded, may be considered as hæmorrhage. Nothing can be more horrifying than the torrent of blood which is sometimes poured forth, and your fears will not be lessened by the fainting which is its consequence. Yet you must be composed, prompt, and self-possessed, or you may lose your patient; for these cases sometimes prove fatal.

Now, as relaxation of the uterus is the cause of this flooding, contraction must be its remedy, whether the placenta have been expelled or not, and your object is therefore to produce this. Strong pressure upon the uterus, and cold applications to the vulva, are the first remedies you will try. If the placenta have not been expelled, you will try whether pressure and drawing

firmly by the cord will extricate it. If so, or if it have been already expelled, you will continue a strong firm pressure with the hand upon the uterus, grasping it in fact, having previously loosened the binder; then occasionally dash a cold wet napkin to the vulva, and take it away again; lighten the bedclothes, take away the pillow and bolster, so as to keep the head low, open a window, and admit a stream of cold air, and give spoonfuls of brandy and water.

These measures you will continue until the flooding cease, or until the arrival of the doctor, for whom you should send immediately, and who will administer some internal medicines which will be useful; but the danger is so immediate that, unless you do something, your patient may die before his arrival. It is the more imperative to obtain assistance when the afterbirth will not come away and hæmorrhage occurs, as this will not stop until the placenta is removed.

3. *Secondary Hæmorrhage.* A less dangerous form of flooding, but one which occasions much alarm, may occur some days or weeks after delivery; and I mention it to tell you, that it is a case for medical advice; but until that is obtained, you cannot do wrong by keeping the patient in bed, giving cool drinks, keeping the room cool, and insisting upon quiet.

CHAPTER XVI.

CLASS III.—COMPLEX LABOR.

ORDER IV.—PUERPERAL CONVULSIONS.

I MIGHT almost have omitted this chapter, so entirely is the subject out of the hands of a midwife, only that I wish to point out one or two symptoms which indicate the probability of an attack, and just give you an idea of what the attack is, that you may instantly recognise it and send promptly for help.

First, let me mention that puerperal convulsions, popularly termed "fits," seldom occur except with first children; and that full plethoric women seem more liable to them than others. They may occur during pregnancy, and before labor sets in; during labor, or after delivery; or they may begin with labor, and continue after delivery. It is rare that there is only one fit; much more common to have ten, twenty, or thirty. During the fit, the patient is quite unconscious, turning up her eyes, throwing about

her arms and legs; the features work and are distorted, the mouth drawn, and covered with froth, the teeth are clenched, and often the tongue bitten, and the whole body is convulsed; in fact, she exhibits all the appearance of one who is seized with a sort of ordinary epilepsy or "falling sickness;" this state of things lasts for a time, and then the patient becomes quiet, breathing noisily. If the fits have been slight she may recover her senses; if severe, she may remain insensible till the next fit; and thus she will go on till the attack terminates. I need not say that it is most dangerous, or that the moment it occurs a physician should be called in; but it is quite possible that if you are watchful, you may be able to prevent an attack.

For example, when you are engaged to attend a lady with her first child, if you find her complain of headache, occasional giddiness, motes dancing before her eyes, dimness of sight, unsteadiness of walk—any, or all of these—you ought never to make light of them; but if they are not relieved by freeing the bowels, advise her to consult her medical attendant immediately.

Still more threatening will the case be if she complains that her hands as well as her feet swell, and if you observe that her face looks puffy. In fact, this kind of dropsical swelling

depends upon a disordered state of the kidneys, and is very constantly followed by convulsions during labor.

When the convulsions occur, there is nothing you can do before the arrival of the doctor, except take care that the patient do not hurt herself; but afterwards, you will have full occupation in carefully and scrupulously carrying out his directions.

CHAPTER XVII.

CLASS III.—COMPLEX LABOR.

ORDER V.—LACERATION OF UTERUS AND PERINEUM, ETC.

1. *Rupture of the Uterus or Vagina* is as formidable and fatal an accident as can happen, and what adds to the distress, is the unexpected nature of the occurrence, as there are rarely any premonitory symptoms. When it occurs at the time of labor, which is all I shall notice here, it is most frequently either the consequence of disease during pregnancy, which has softened the structure of the womb, and disposed it to give way, or the result of violent pains, forcing the child's head against a narrow brim. The rent may occur at any part of the womb, and take any direction if there be disease; but most frequently it is found in the lower portion, where the uterus joins the vagina, and either in front or behind. The accident, as you might expect, is a very fatal one, some dying almost imme-

diately, but others living hours or days; and a few, very few, actually recovering. Had it been invariably fatal, I should have omitted this chapter; but as there is a possible chance, it is desirable that you should be able to recognise the symptoms in order to obtain help promptly.

The chief cases in which you would have reason to apprehend the occurrence of rupture, are those in which there exists some deformity or narrowing of the pelvis, and if the woman's previous labors have been difficult or instrumental, you may suspect that her pelvis is more or less below the natural size. Now, suppose a woman, under these circumstances, have strong uterine action in the second stage of labor, without any proportionate advance of the head, it would be your duty to send for assistance sooner than you otherwise need do, inasmuch as she would be exposed to the risk of having her womb lacerated if the violent pains continued.

The most striking symptoms are the sudden cessation of labor pains, perhaps after an unusually severe one; the patient becoming weak and faint, and vomiting a dark-colored fluid, a slight discharge of blood from the vagina, together with partial or complete recession of the presenting part.

For instance, suppose yourself attending a

lady in labor, and this accident should occur, she will suddenly call out with the violence of the pain, and tell you, perhaps, that something has burst, nay, that she heard it crack; then that she is dying, and you will see a shadow almost of death steal over her face, her pulse will become quick and very weak, the surface cold and clammy, the eyes sunk, and the voice changed, with vomiting perhaps: in fact, the aspect of the patient is not unlike (except in color) one attacked by cholera. If you make an examination, you will not be able to feel the head, it has receded in consequence of the child having escaped through the rent into the abdomen, except in those cases where the head was low down, or jammed in the pelvis, or when the rent does not extend through and through the wall of the vagina or uterus. The patient has no more labor pains, and generally, there is a discharge of blood from the vagina. The limbs of the child may be felt in the belly of the patient, which swells and becomes very tender. There are other symptoms, but I have especially selected the most striking, and as they never occur in labor, from any other cause, to the same extent, I think you will by them have no difficulty in recognising rupture of the uterus. The only chance for the woman is instant assistance; therefore, lose not a moment in

sending for medical aid. The child perishes directly after the rupture.

2. *Laceration of the Perineum* is an accident you are much more likely to see, and, though not a fatal one, it so seriously destroys the patient's comfort, that you will deservedly incur severe blame if it be from neglect. But what do you understand by laceration of the perineum? With first children particularly, the mucous membrane of the vagina is more or less averted or pushed down, the protruding head, forming, as it were, an addition to the perineum; and this little portion is very frequently torn; but this is not laceration of the perineum, which is untouched, and the torn part recedes after delivery, so that you could hardly find the rent if you looked for it.

Again, sometimes, in first cases chiefly, the edge of the true perineum is slightly cracked, without extending further, and notwithstanding all our care; but this I should hardly call a laceration of the perineum, in any practical sense. But if this rent extend further up, to the margin of the anus, or through into the gut, that is laceration of the perineum, and a sad accident it is—one, I believe, that rarely, if ever occurs, even in operations, if the perineum be wisely and sufficiently supported; at least, I never saw it. There are various causes which

predispose to it, such as a peculiar formation of the pelvis, which, however, is not common; the sudden shooting out the head by a very strong pain; rigidity of the perineum, probably the most frequent cause; malposition of the child's head, as in face presentations, or when the forehead is towards the pelvis, or malpresentation; but if I am to say honestly what I think the most frequent cause of such accidents, in midwife's practice, at least, I should suggest, drawing back the perineum just as the head passes through the orifice, or assisting the body out without supporting the perineum whilst the shoulders pass out; or lastly, in a breech or footing case, using too much force in extracting the head. Now I have expressly cautioned you against such practices; and if you neglect my advice, and the accident occur, I hope you will severely blame yourself, for you will richly deserve it.

Remember, steady, firm, moderate support from the point of the coccyx forward, during a pain, until it goes off completely; and during every pain after the head begins to distend the perineum, gently pressing the skin forward over the head; and this repeated when the shoulders pass out. If the pains are excessively violent, threatening to drive out the head before the orifice is sufficiently dilatable, you should make

the patient cry out during a pain, which will prevent her bearing down. If the perineum be rigid or inflamed, you may foment it with hot water and a sponge. And if you are managing a breech case, take care not to use so much force as to tear the perineum: you should have some one to support it.

If, notwithstanding all your care, the accident should occur, do not attempt to conceal it: if you have not been negligent, no blame is due to you; but you would be inexcusable if you did not state the case immediately, and request surgical assistance, as two or three sutures applied immediately, may completely remedy the accident.

CHAPTER XVIII.

CLASS III.—COMPLEX LABOR.

ORDER VI.—INVERSION OF THE UTERUS.

THE last complication of labour is a very rare one, and one which, probably, you may never meet; but as very serious consequences might result from any attempt on your part to meddle with it, and as the only chance of remedying it is by prompt assistance, it is important that you should be aware of it, and able to recognise it.

Inversion of the uterus means the uterus turned inside out, which is the best possible description of it. From causes not very satisfactorily settled, among which is pulling too forcibly at the funis, the uterus, instead of contracting to expel the placenta, is inverted, and then forced down to, or out of, the external orifice, with the placenta generally adhering to it. There is a strong bearing down pain, great hæmorrhage generally, and much sinking, with a fluttering pulse, and cold, clammy sweats.

But that which will decide you as to the nature of the case, is the tumor which protrudes; which, though at first you may mistake it for the placenta, you will soon discover to be something more.

Don't touch it, don't pull it, don't push it back, don't even separate the placenta, but send instantly for help; keep the patient quiet, give her some wine or brandy, and apply cold to the tumor, if there be much hæmorrhage.

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